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STATE OF WASHINGTON

DATA SUMMARY & ANALYSIS

OF

1985 TRAFFIC COLLISIONS

Prepared By:

Rebecca Jones, Secretary/Micro Coordinator

Ken Thompson, Personal Services Contract Data Analyst

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PART II

OVERALL STATEWIDE PROBLEM ANALYSIS

II—OVERALL STATEWIDE PROBLEM ANALYSIS

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STATEWIDE SUMMARY

Overview

The number of persons killed on the state's highways in 1985 totalled 756, a 2% increase from the 1982-1984 three-year baseline average of 741. There was a 1.6% drop in the total number of fatal collisions for 1985 compared to the average for 1982-1984. Increases for 1985 over the three-year baseline period were recorded in the categories of total collisions, injury collisions, total number of persons injured and property damage only collisions (Table 1-1)

Table 1-1

SEVERITY OF COLLISIONS Four Year Comparison						
Impact	Years				Previous 3 Year Average (82-84)	% of Change 85 - 3 Year Average
	1985	1984	1983	1982		
Total Collisions	120,056	111,655	106,597	100,644	106,299	12.9%
Fatal Collisions	656	687	635	679	667	-1.6%
Total Killed	756	761	705	757	741	2.0%
Injury Collisions	44,373	42,076	40,273	37,790	40,046	10.8%
Total Injured	63,806	61,366	58,317	54,789	58,157	9.7%
Property Damage Only Collisions	75,027	68,892	65,689	62,175	65,585	14.4%

Exposure

A 6.2% increase in motor vehicle miles travelled was recorded for 1985 over the 1982-1984 baseline period. Motor vehicle registration jumped by 4.9% over baseline while the number of licensed drivers was up 5.9%. In 1985 the state's population increased over the 1982-84 average by 2.1% to a total of 4,384,100 persons (Table 1-2).

Table 1-2

VEHICLES AND DRIVERS Four Year Comparison						
Exposure	Years				Previous 3 Year Average (82-84)	% of Change 85 - 3 Year Average
	1985	1984	1983	1982		
Motor Vehicle Travel* **	33,980	33,344	32,275	30,353	31,991	6.2%
Motor Vehicle Registration	3,546,152	3,459,772	3,372,966	3,313,348	3,382,029	4.9%
Licensed Drivers	3,040,829	2,973,468	2,867,032	2,774,212	2,871,571	5.9%
State's Population	4,384,100	4,328,100	4,285,100	4,264,000	4,292,400	2.1%

*In Millions

**Preliminary Estimate for 1985

Rates

The 1985 motor vehicle traffic death rate dropped slightly to 2.22 deaths per 100 million vehicle miles of travel from 1984's 2.28. This also represented a 4.3% decline from the baseline average. The rate of 1.88 injuries per one million vehicle miles in 1985 was a 3.4% increase from the baseline (Table 1-3).

Table 1-3

DEATH AND INJURY RATES Four Year Comparison						
Rates	Years				Previous 3 Year Average (82-84)	% of Change 85 - 3 Year Average
	1985	1984	1983	1982		
Death Rate (Deaths per 100M vehicle miles)	2.22	2.28	2.18	2.49	2.32	-4.3%
Injury Rate (Injury per 1M vehicle miles)	1.88	1.84	1.81	1.81	1.82	3.4%

Fatalities By Status

Drivers continued in 1985 as the most common status of those killed as a result of motor vehicle collisions. Fatalities in this classification, however, decreased from 392 in 1984 to 362 in 1985. The 1985 figure decreased 0.3% from the average of the three previous years. In contrast, the number of passengers killed increased by 22 in 1985 and increased 13.6% from the three year baseline. The number of motorcycle drivers fatally injured in collisions also increased from 62 in 1984 to 75 the following year. Last year's total equaled the three year baseline (Table 1-4).

Table 1-4

PERSONS KILLED BY STATUS Four Year Comparison						
Status	Years				Previous 3 Year Average (82-84)	% of Change 85 - 3 Year Average
	1985	1984	1983	1982		
Drivers (no motorcyclists)	362	392	343	354	363	-0.3%
Passengers	211	189	182	186	186	13.6%
Pedestrians	89	97	89	101	96	-7.0%
Bicyclists	12	11	14	8	11	9.1%
Motorcycle Drivers	75	62	72	92	75	N.C.
Motorcycle Passengers	7	10	5	16	10	-32.3%
TOTAL	756	761	705	757	741	2.0%

Traffic Collisions, Deaths, Injuries, Travel And Death Rate

The steady decline in the number of traffic fatalities that followed the state's 1979 high point of 1,034 reached bottom at 705 in 1983 but then ascended to 761 the following year. The 1985 count, however, was still the second lowest since 729 persons were reported killed in 1965 (Figure 1-1). Motor Vehicle travel in 1985 increased by 1.9% over 1984 to reach an all-time high of 33.978 billion miles (Figure 1-2).

The state's 1985 traffic fatality rate 2.22 deaths per 100 million vehicle miles of travel continued below the national rate of 2.60 for the year. The state rate thus represented the second lowest figure, exceeded only by the record low of 2.18 recorded for 1983 (Figure 1-3). Total reported motor vehicle traffic collisions and injuries increased over 1984. Total collisions were up 7.5% while the number of persons injured rose by 4.0% (Figure 1-4).

Collisions By Type

A 7.4% increase in multiple vehicle collisions over 1984 was recorded in 1985 (Figure 1-5). Similarly, single vehicle collisions were up 8.4 % (Figure 1-6). Vehicle-pedestrian collisions increased 1.0% from 1984 (Figure 1-7). Vehicle-pedalcyclist collisions experienced a sharper increase of 12.9% in 1985, after a slight decrease in 1984 (Figure 1-8).

Traffic Deaths And Death Rates By County

In 1985 fatalities ranged from a high of 163 in King County, with a death rate of 1.7 (traffic deaths per 100 million vehicle miles of travel) to a low of zero deaths in Pend Oreille and Columbia Counties. Stevens County recorded the highest death rate; at 6.7, computed on sixteen fatalities, followed by Walla Walla County, which recorded a 6.3 death rate on eighteen deaths (Figure 1-9).

Highways, Travel And Fatalities

The U.S and State Numbered Systems (other than the Interstate System) was the most-traveled road system in the state, recording 10.618 billion miles, up from the 10.420 billion miles of 1984. The interstate system continued to have the lowest death rate of all the state systems, however, the 0.94 rate recorded in 1985 was up from the 0.73 rate recorded in 1984. Travel on city streets increased to 8.104 billion miles in 1985 and recorded a death rate of 1.48, up from 1.42 in 1984. County roads were traveled 6.704 billion miles and recorded a death rate of 3.33 in 1985, a decline from the previous year's 3.78 rate. Total motor vehicle travel in the state increased from 33.344 billion miles to 33.980 billion (Table 1-5).

Figure 1-1

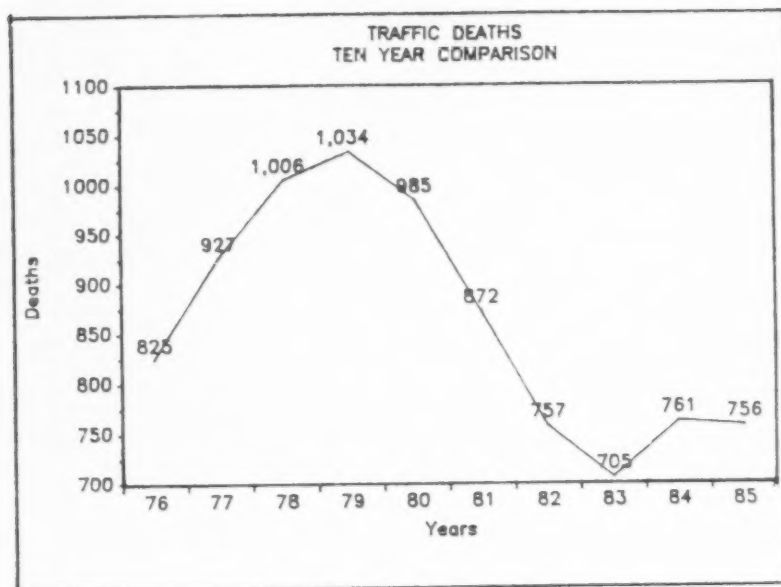


Figure 1-2

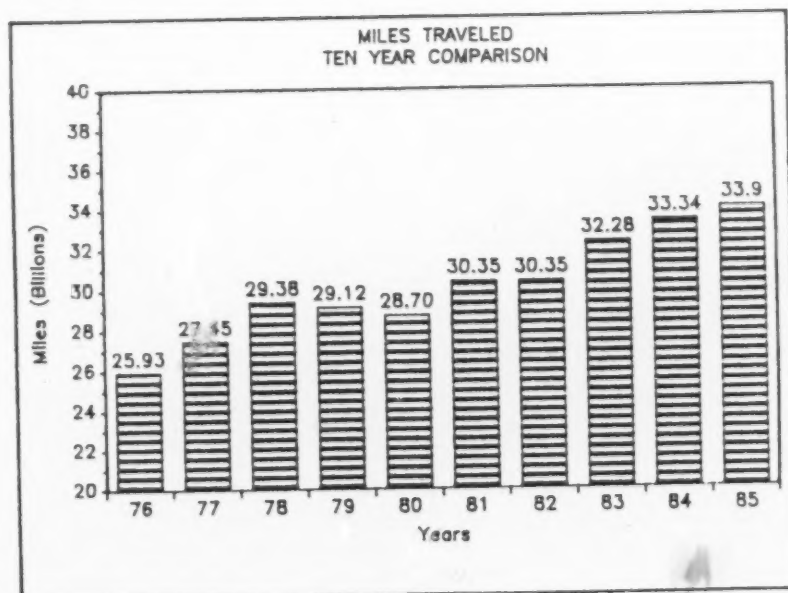


Figure 1-3

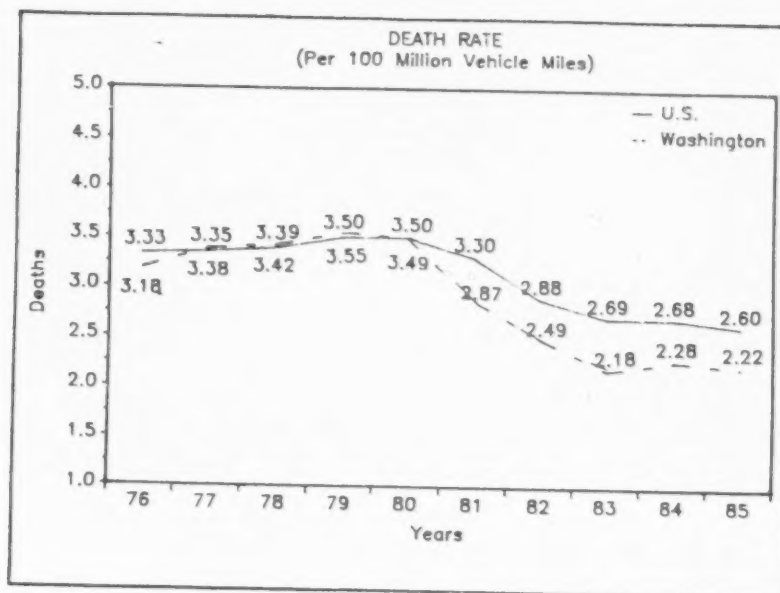


Figure 1-4

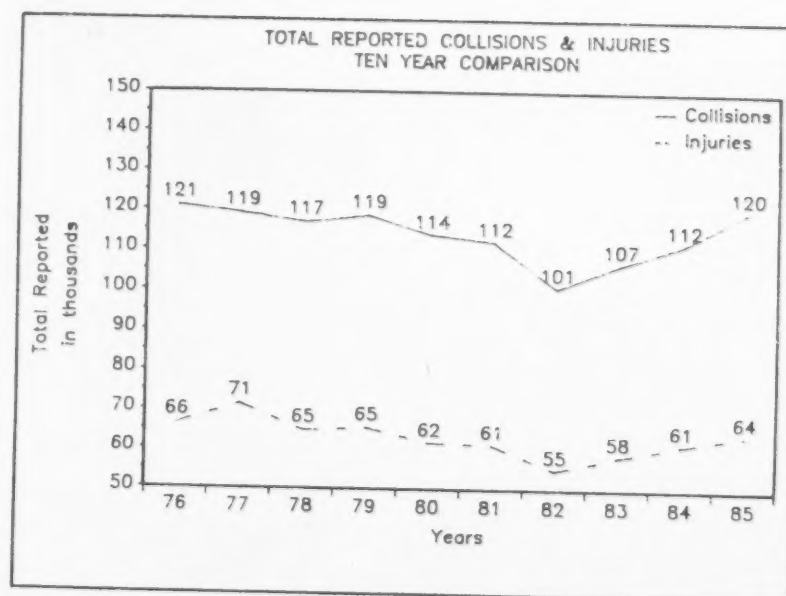


Figure 1-5

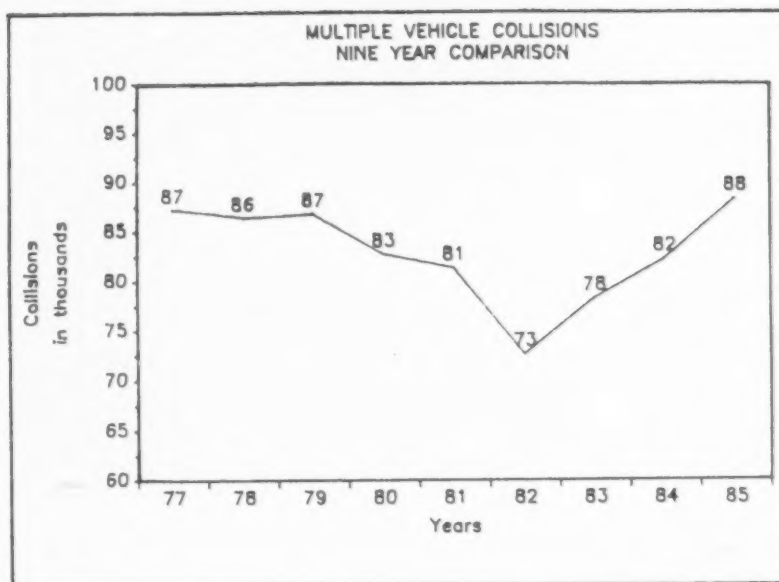


Figure 1-6

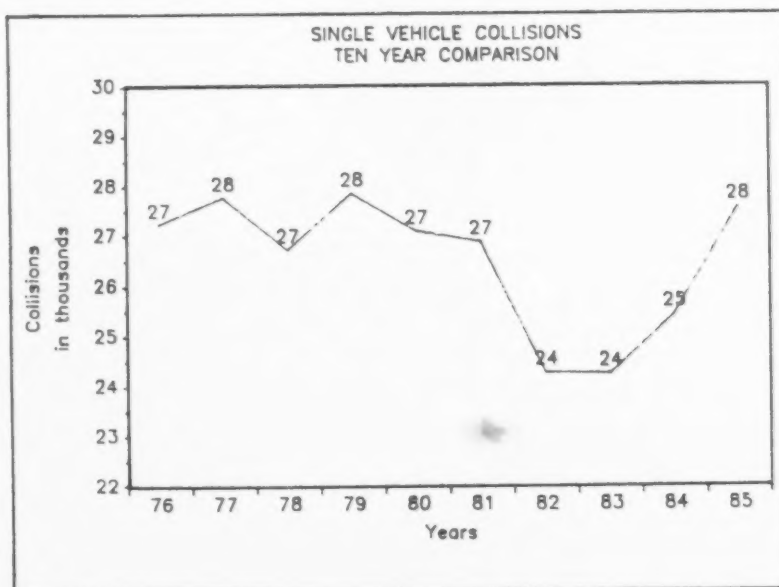


Figure 1-7

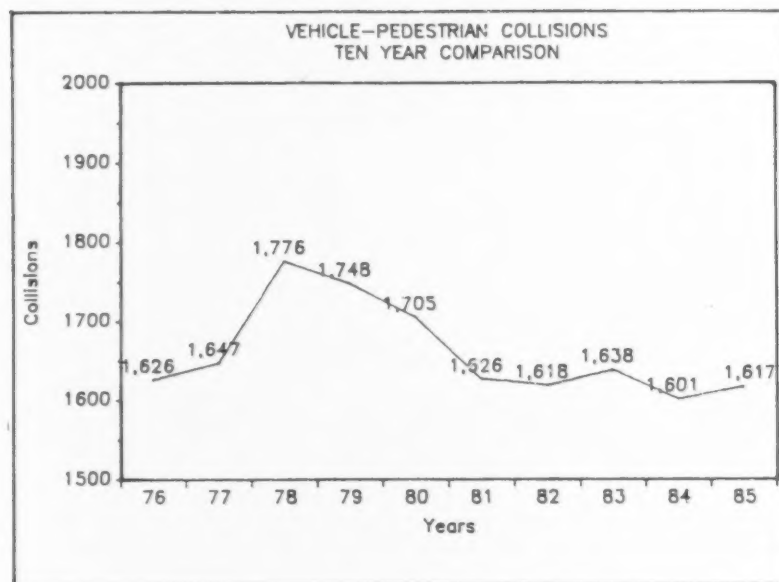


Figure 1-8

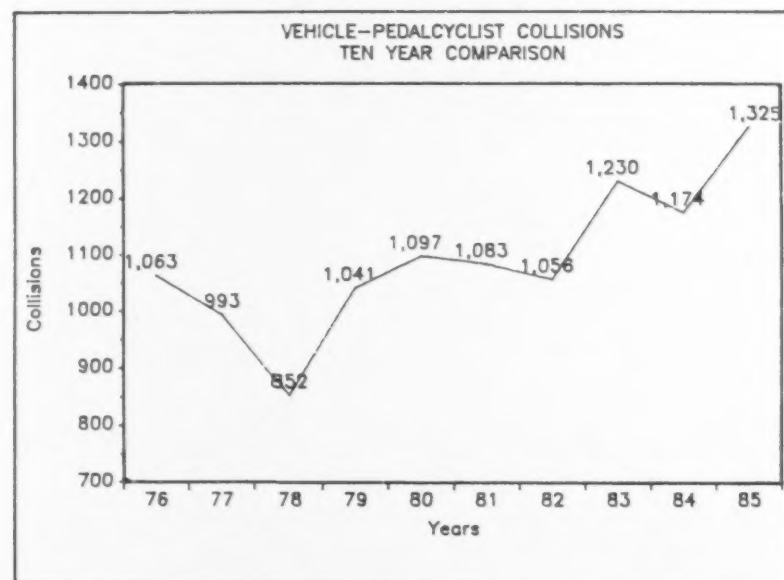


Figure 1-9

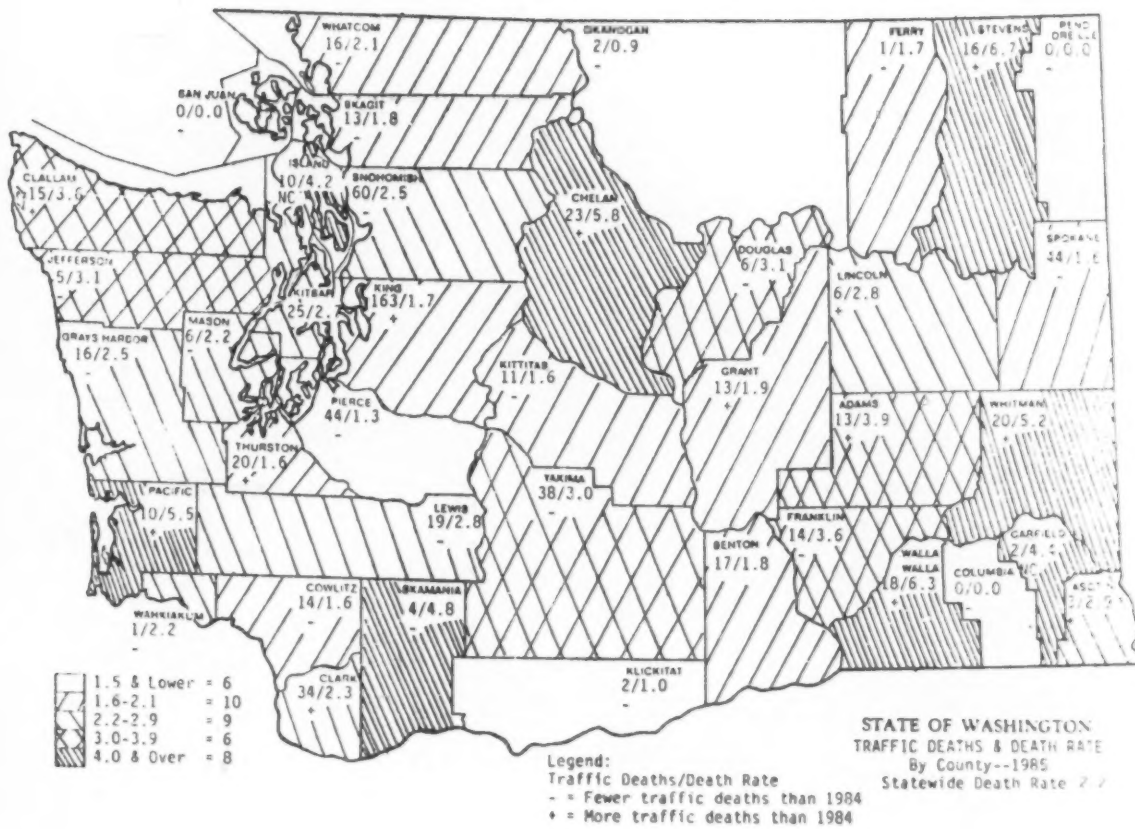


Table 1-5

HIGHWAYS, TRAVEL, AND ACCIDENTS By Type of Highway							
Type of Highways	Highways		Vehicle Miles Traveled*		Accidents		
	Miles	% of Total	Miles (Millions)	% of Total	Total Collisions	Total Fatalities	Death Rate for CMVM*
Interstate System**	761	0.94%	8,480	24.96%	11,290	80	0.94
All Other State Highways	6,210	7.69%	10,618	31.25%	25,871	323	3.04
County Roads	41,358	51.23%	6,704	19.73%	27,010	223	3.33
City Streets	10,776	13.35%	8,104	23.85%	55,186	120	1.48
All Other Traffic Ways***	21,626	26.79%	74	0.22%	689	10	13.51
TOTAL	80,731	100.00%	33,980	100.00%	120,046	756	2.22

*Preliminary Estimates

*Fatalities per hundred million vehicle miles, based on roadway travel as reported by the Dept. of Transportation.

**Does not include traveled way.

***Does not include (all terrain vehicle) trails.

Figure 1-10

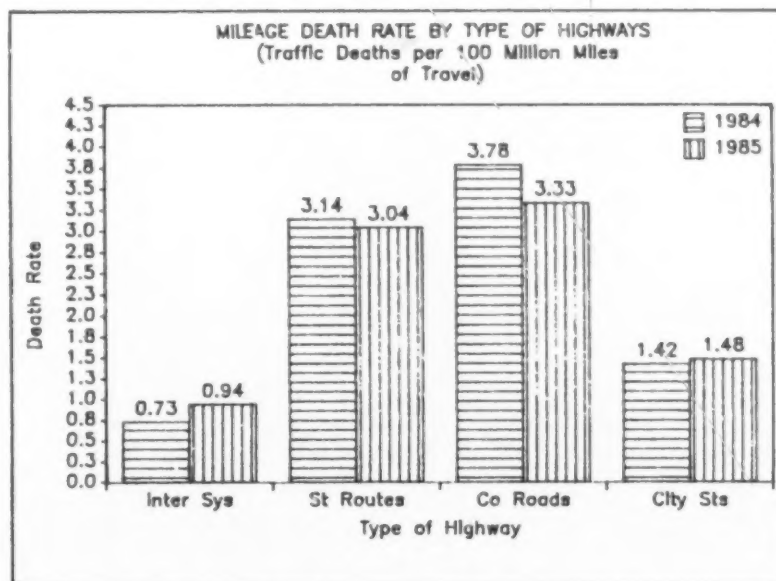


Figure 1-11

TRAFFIC FATALITIES In 1985 and Percent of Change from 1984

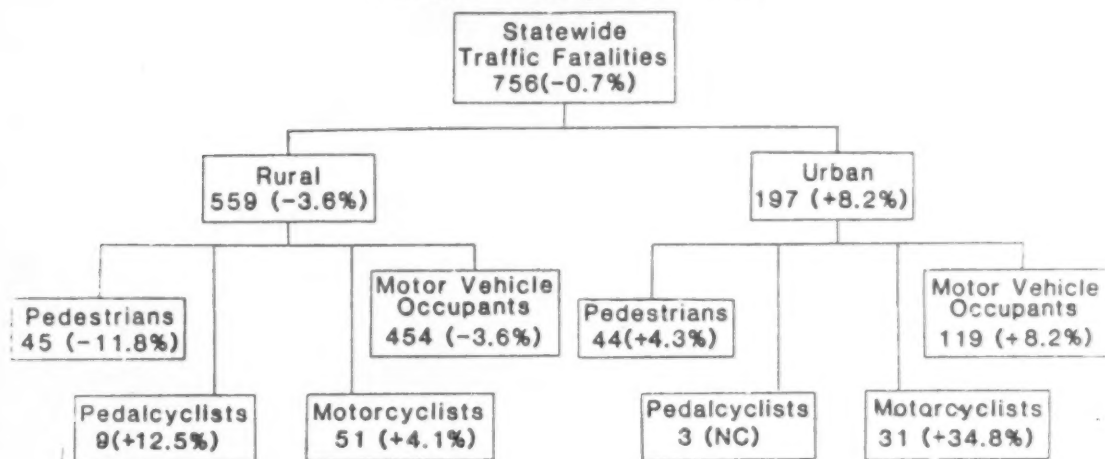


Figure 1-12 **TRAFFIC FATALITIES by AGE and SEX**
1985

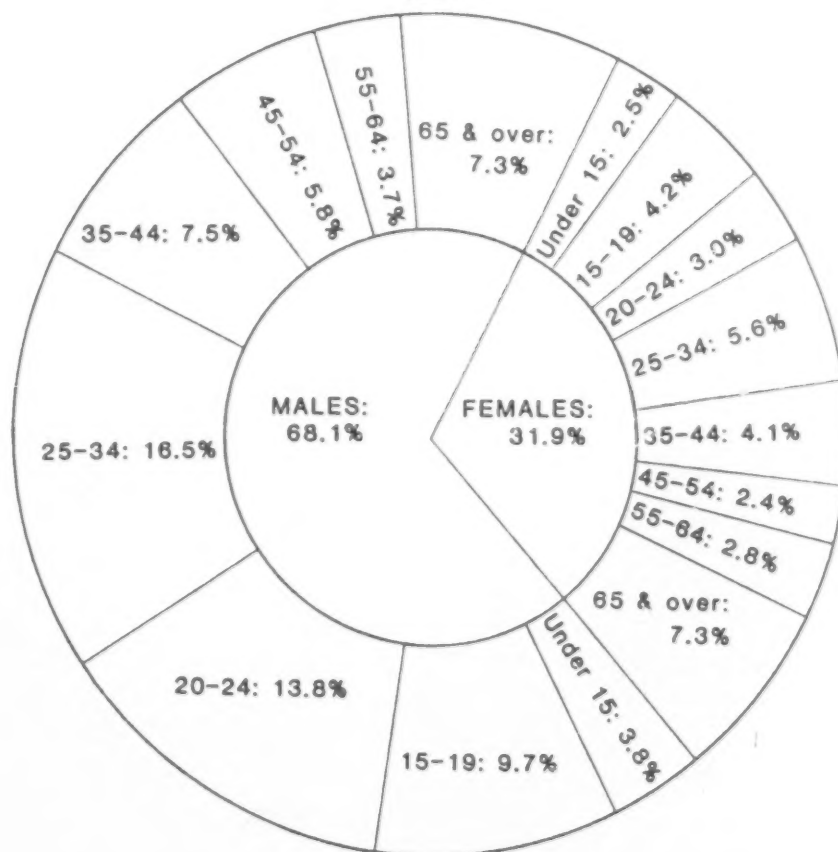


Table 1-6

PERSONS KILLED AND INJURED By Age By Status								
Age	Total		Occupants		Pedestrians		Pedalcyclists	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
0 - 4	11	1,142	8	1,027	3	83	0	31
5 - 9	27	1,689	11	1,235	11	203	3	251
10 - 14	12	2,085	7	1,480	3	195	2	403
15 - 19	105	10,609	100	10,159	3	208	2	241
20 - 24	127	11,320	122	10,979	5	181	0	155
25 - 34	167	14,690	155	14,245	11	285	1	143
35 - 44	88	8,964	78	8,748	9	169	1	38
45 - 54	62	4,601	53	4,483	7	99	2	15
55 - 64	49	3,405	39	3,306	9	90	1	8
65 - 74	51	2,186	44	2,091	7	92	0	2
75/Older	59	1,150	38	1,067	21	82	0	1
Not Stated	0	1,965	0	1,850	0	76	0	37
TOTAL*	756	63,806	655	60,670	89	1,763	12	1,325

*Total Injured includes 48 injured where the status of the injured was unknown

Table 1-6a

COMPARISON OF TRAFFIC DEATHS BY MONTH Three Year Comparison								
Month	1985		1984		1983		% Change 85 to 84	
	Month Total	Year To Date	Month Total	Year To Date	Month Total	Year To Date	Month Total	Year To Date
January	43	43	48	48	49	49	-10.4%	-10.4%
February	48	91	41	89	34	83	17.1%	2.2%
March	52	143	56	145	46	129	-7.1%	-1.4%
April	61	204	50	195	76	205	22.0%	4.6%
May	84	288	68	263	47	252	23.5%	9.5%
June	67	355	82	345	65	317	-18.3%	2.9%
July	87	442	83	428	73	390	4.8%	3.3%
August	63	505	75	503	67	457	-16.0%	0.4%
September	66	571	63	566	64	521	4.8%	0.9%
October	66	637	76	642	59	580	-13.2%	-0.8%
November	56	693	72	714	67	647	-22.2%	-2.9%
December	63	756	47	761	58	705	34.0%	-0.7%

Table 1-7

COLLISION RATES BY COUNTY POPULATION 1985							
County	1985 Population	Traffic Deaths		Traffic Injuries		Total Collisions	
		Number	Rate*	Number	Rate**	Number	Rate**
Over 1,000,000							
1. King	1,346,400	163	12.11	22,405	16.64	43,956	32.65
250,000 to 500,000							
1. Pierce	524,900	75	14.29	8,524	16.24	14,662	27.93
2. Snohomish	373,000	60	16.09	5,027	13.48	9,388	25.17
3. Spokane	354,300	44	12.42	5,944	16.78	10,485	29.59
100,000 to 250,000							
1. Clark	203,400	34	16.72	2,461	12.10	4,335	21.31
2. Yakima	182,500	38	20.82	2,055	11.26	4,392	24.07
3. Kitsap	167,800	25	14.90	2,073	12.35	3,583	21.35
4. Thurston	139,500	20	14.34	1,981	14.20	3,565	25.56
5. Whatcom	116,000	16	13.79	1,403	12.09	2,833	24.42
6. Benton	105,200	17	16.16	1,050	9.98	2,279	21.66
50,000 to 100,000							
1. Cowlitz	79,600	14	17.59	1,099	13.81	1,958	24.60
2. Skagit	68,200	14	20.53	1,101	16.14	1,970	28.89
3. Grays Harbor	63,900	16	25.04	893	13.97	1,739	27.21
4. Lewis	56,500	19	33.63	823	14.57	1,545	27.35
5. Clallam	52,600	15	28.52	623	11.84	1,133	21.54
25,000 to 50,000							
1. Grant	49,900	13	26.05	528	10.58	1,097	21.98
3. Island	49,200	10	20.33	474	9.63	848	17.24
4. Chelan	48,500	23	47.42	640	13.20	1,407	29.01
2. Walla Walla	48,400	18	37.19	532	10.99	1,073	22.17
5. Whitman	39,600	20	50.51	384	9.70	746	18.84
6. Franklin	35,700	14	39.22	430	12.04	908	25.43
7. Mason	34,800	6	17.24	423	12.16	780	22.41
8. Okanogan	31,700	2	6.31	347	10.95	641	20.22
9. Stevens	30,100	16	53.16	264	8.77	455	15.12
10,000 to 25,000							
1. Kittitas	25,000	11	44.00	485	19.40	1,061	42.44
2. Douglas	22,900	6	26.20	240	10.48	459	20.04
3. Pacific	17,500	10	57.14	205	11.71	326	18.63
4. Jefferson	17,500	5	28.57	309	17.66	489	27.94
5. Asotin	17,000	3	17.65	87	5.12	227	13.35
6. Klickitat	16,700	2	11.98	153	9.16	323	19.34
7. Adams	13,800	13	94.20	211	15.29	348	25.22
Under 10,000							
1. Lincoln	9,700	6	61.86	112	11.55	159	16.39
2. Pend Oreille	9,100	0	0.00	95	10.44	163	17.91
3. San Juan	8,900	0	0.00	58	6.52	138	15.51
4. Skamania	7,900	4	50.63	114	14.43	205	25.95
5. Ferry	6,100	1	16.39	101	16.56	132	21.64
6. Columbia	4,100	0	0.00	57	13.90	108	26.34
7. Wahkiakum	3,700	1	27.03	61	16.49	84	22.70
8. Garfield	2,500	2	80.00	34	13.60	56	22.40
TOTAL	4,384,100	756	17.24	63,806	14.55	120,056	27.38

*Frequency per 100,000 population

**Frequency per 1,000 population

Table 1-8

COLLISION RATES BY CITY POPULATION* 1985							
City	1985 Population	Traffic Deaths		Traffic Injuries		Total Collisions	
		Number	Rate**	Number	Rate***	Number	Rate***
250,000 and Over							
1. Seattle	491,400	34	6.92	8,518	17.33	17,958	36.54
100,000 to 250,000							
1. Spokane	172,100	19	11.04	3,543	20.59	6,741	39.17
2. Tacoma	160,800	24	14.93	3,051	18.97	5,518	34.32
50,000 to 100,000							
1. Bellevue	80,250	3	3.74	1,062	13.23	2,288	28.51
2. Everett	57,030	3	5.26	824	14.45	1,926	33.77
25,000 to 50,000							
1. Yakima	49,510	2	4.04	775	15.65	1,890	38.17
2. Bellingham	46,360	4	8.63	510	11.00	1,280	27.61
3. Vancouver	42,760	4	9.35	616	14.41	1,384	32.37
4. Kennewick	36,990	1	2.70	309	8.35	830	22.44
5. Bremerton	37,760	5	13.24	552	14.62	1,169	30.96
6. Renton	34,030	3	8.82	726	21.33	1,477	43.40
7. Richland	30,508	2	6.56	330	10.82	697	22.85
8. Longview	30,300	1	3.30	462	15.25	812	26.80
9. Auburn	29,880	4	13.39	456	15.26	874	29.25
10. Olympia	28,560	2	7.00	582	20.38	1,179	41.28
11. Redmond	28,130	1	3.55	283	10.06	728	25.88
12. Edmonds	27,880	6	21.52	209	7.50	535	19.19
13. Kent	26,979	5	18.53	790	29.28	1,311	48.59
14. Walla Walla	25,640	4	15.60	240	9.36	616	24.02
15,000 to 25,000							
1. Lynnwood	23,400	3	12.82	556	23.76	1,067	45.60
2. Pullman	22,560	5	22.16	118	5.23	327	14.49
3. Mercer Island	20,620	0	0.00	83	4.03	230	11.15
4. Kirkland	19,205	1	5.21	243	12.65	591	30.77
5. Puyallup	19,180	0	0.00	288	15.02	626	32.64
6. Pasco	18,700	1	5.35	224	11.98	602	32.19
7. Wenatchee	17,360	1	5.76	201	11.58	671	38.65
8. Aberdeen	17,250	4	23.19	179	10.38	591	34.26
9. Port Angeles	17,200	2	11.63	208	12.09	461	26.80
10. Mountlake Terrace	15,900	0	0.00	121	7.61	255	16.04
10,000 to 15,000							
1. Lacey	15,200	1	6.58	171	14.34	382	25.13
2. Mount Vernon	14,210	0	0.00	218	11.12	445	31.32
3. Des Moines	13,500	2	14.81	158	6.74	272	20.15
4. Oak Harbor	12,617	2	15.85	91	11.89	190	15.06
5. Centralia	11,810	1	8.47	150	5.17	360	30.48
6. Ellensburg	11,670	1	8.57	61	14.22	211	18.08
7. Kelso	10,930	0	0.00	166	10.98	335	30.65
8. Moses Lake	10,370	1	9.64	120	11.57	320	30.86
TOTAL	1,728,549	152	8.79	27,194	15.73	57,149	33.06

*Does not include collisions on limited access roads or freeways

**Frequency per 100,000 population

***Frequency per 1,000 population

EXPLANATION OF PROBLEM ANALYSIS PROCESS

Explanation Of Problem Analysis Process

In developing the Problem Identification section for the 1987 Highway Safety Plan (HSP), problem areas were classified into two basic types: impact problems and system support problems.

Impact problems are those whose factors contribute directly to the occurrence of collisions, fatalities and/or injuries and may be corrected through the implementation of countermeasures designed to reduce the effects of these factors.

System support problems are those deficiencies within vital traffic safety programs whose correction may not be directly reflected in a reduction in traffic collisions, injuries or fatalities.

The basis for impact and system support problem identification, analysis and selection for inclusion into the HSP was done in two ways.

1. Impact problem areas were based on identifying statewide experience in impact areas (where information was available) outlined in the Federal safety standards. Various statewide automated and manual traffic information systems were inventoried and analyzed. The data sources included: Traffic Accident Records, Fatal Accident Reporting System, Driver's Licensing Records, Vehicle Registration Records and Highway/Roadway Information. In most instances, four years' worth of data were gathered as a baseline to serve as a point of comparison to the current year's activity level.
2. The second source for problem identification inclusion in the HSP resulted from analysis by and for various state and local agencies with an interest in highway safety. The Washington Traffic Safety Commission made it known that the two main emphasis areas in FY 1987 were the non-use of occupant restraint systems, and alcohol-related collisions.

Data Analysis And Statistical Techniques

Data analysis was a key factor in the identification and selection of the traffic problem areas included in this Plan. The analyses were performed to ensure that the conclusions drawn from the data were valid and credible.

The most common data sources in the HSP were the statewide traffic collision records, which were used for identifying the specific traffic problem areas. Four continuous years (1981-1984) of collision experience were used to serve as a baseline in analyzing traffic collision data. This baseline was used to obtain a better

perspective to assess the current year's (1985) experience with traffic problem areas. The baseline also serves to negate short-term changes in collision patterns.

The development of over/under-representation ratios were the most frequently used methods of analysis. Where relevant exposure data were available, the generation of over-representation ratios allow for the comparisons of different subgroups relative to the percentage of the population they comprise. Additionally, county and city rankings were generated for different problem areas to compare geographical and political subdivisions.

ANALYSIS OF SELECTED TRAFFIC PROBLEMS

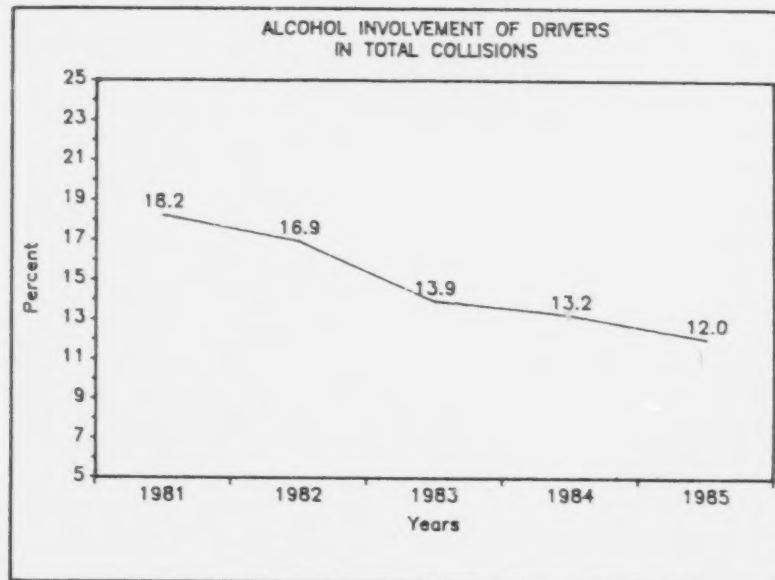
- Alcohol Involvement
- Youth Involvement
- Safety Restraint Usage
- Motorcycle Collisions
- Pedalcycles
- Pedestrians
- Heavy Trucks
- Pupil Transportation
- Contributory Driver Violations
- Vehicle Defects
- Senior Driver Involvement

ALCOHOL INVOLVEMENT

Overview

In 1985, 12.0% of all drivers involved in traffic collisions had been drinking alcohol. This is a 3.2% decrease from 1984 and continues a four-year downward trend (Figure 2-1).

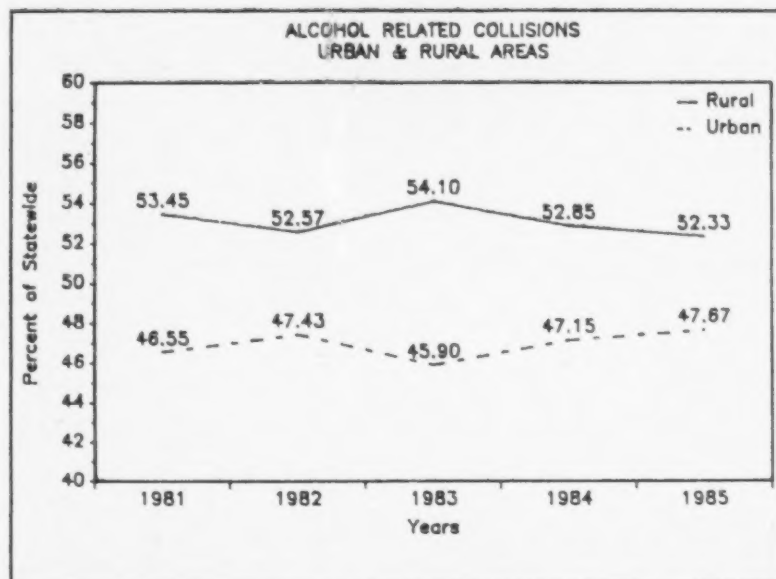
Figure 2-1



Location Of Alcohol Related Collisions

In 1985 the urban-rural breakdown of alcohol-related collisions continued the trend established in 1984 with a decrease in rural areas and an increase in the urban areas compared to 1984; 52.33% of the alcohol-related collisions occurred in rural areas and 47.67% in urban areas (Figure 2-2).

Figure 2-2



The predominant type of alcohol-related vehicle collisions continued to be multiple-vehicle mishaps in urban areas (Figure 2-3) with the opposite holding true in rural areas (Figure 2-4). Of the urban collisions, 66.0% involved two or more vehicles while only 36.3% were multiple vehicle collisions on rural roads.

Figure 2-3

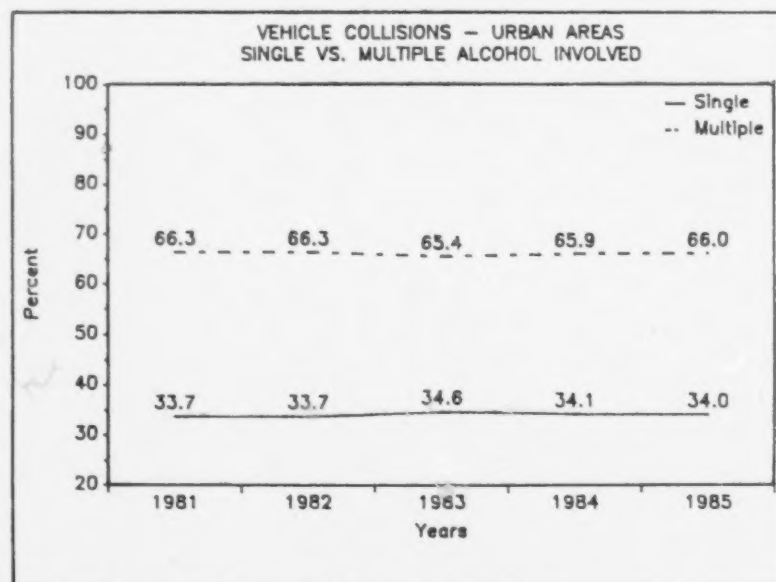
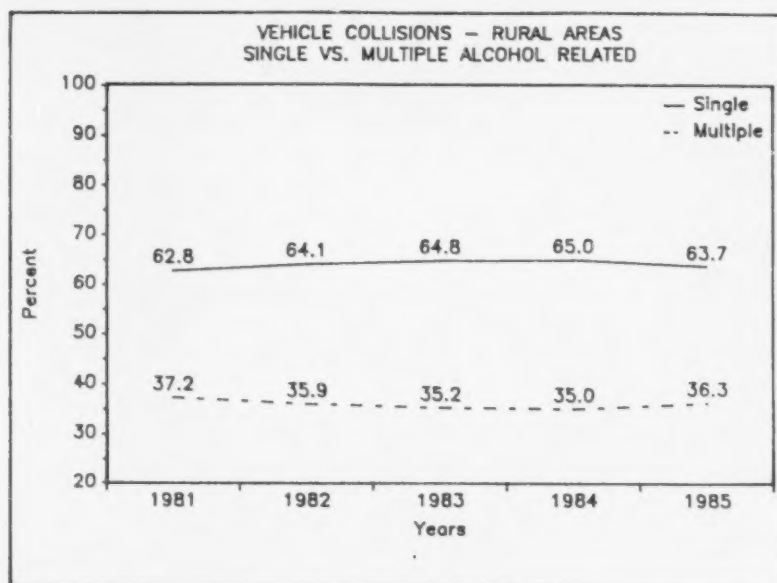


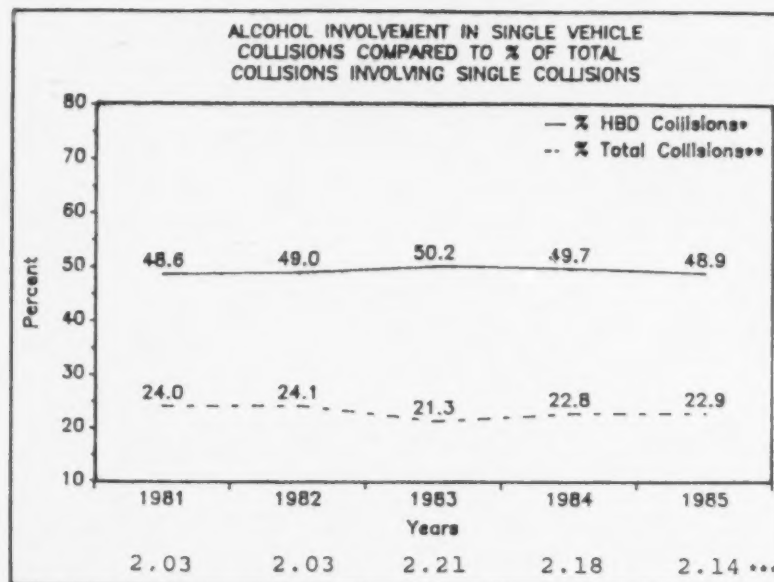
Figure 2-4



Single Vehicle Collisions Involving Alcohol

In 1985 the percentage of all single vehicle collisions where the driver had been drinking remained relatively stable at nearly 48.9% of the total alcohol involved collisions. By comparison the percentage of total collisions that the single vehicle collision represents was only 22.9% in 1985 (Figure 2-5). Comparing the percentage of alcohol involvement in single vehicle collisions to the percentage of total collisions the single vehicle collision represents allows for the generation of a ratio to express the over-representation of alcohol in single vehicle collisions. In 1985, this ratio continued a decreasing trend established in 1984 from 2.21 in 1983; 2.18 in 1984, and 2.14 in 1985.

Figure 2-5



* Had Been Drinking

** Represented By Single Vehicle

*** Ratio:

Over-involvement of single vehicle alcohol involved collisions compared to single vehicle collisions in total collisions

Drivers Involved In Fatal Collisions

In 1985, 37.5% of the drivers involved in statewide fatal collisions had been drinking intoxicants, a decline for the sixth straight year. The year 1985 registered 13.2% fewer drivers in this category than the four-year baseline period of 1981-84. In rural areas, 37.3% of the drivers in fatal collisions had been drinking, a 16.25% decline over the 1981-84 average. In urban areas, the figure was 37.9%, a 2.78% decrease from baseline. (Tables 2-1, 2-1a, 2-1b)

Table 2-1

SOBRIETY OF DRIVERS INVOLVED IN FATAL COLLISIONS Statewide Comparison							
Condition of Driver (Sobriety)	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
Had been drinking - ability impaired	292	307	260	333	364	316	-7.59%
Had been drinking - ability not impaired	43	52	37	39	74	51	-14.85%
Had been drinking - sobriety unknown	11	11	31	51	68	40	-72.67%
Had not been drinking	577	574	502	489	556	530	8.82%
Not stated	45	41	62	49	71	56	-19.28%
Total drivers drinking	346	370	328	423	506	407	-14.94%
Total drivers - excluding not stated	923	944	830	912	1,062	937	-1.49%
Total drivers	968	985	892	961	1,133	993	-2.49%
No. drinking drivers per 100 involved	37.5	39.2	39.5	46.4	47.6	43.2	-13.20%
No. drunk drivers per 100 involved	31.6	32.5	31.3	36.5	34.3	33.7	-6.01%

Table 2-1a

SOBRIETY OF DRIVERS INVOLVED IN FATAL COLLISIONS Rural Comparison							
Condition of Driver (Sobriety)	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
Had been drinking - ability impaired	223	246	198	265	291	250	-10.80%
Had been drinking - ability not impaired	29	35	28	28	57	37	-21.62%
Had been drinking - sobriety unknown	6	6	24	36	46	28	-78.57%
Had not been drinking	433	422	360	362	406	388	11.74%
Not stated	21	24	32	21	33	28	-23.64%
Total drivers drinking	258	287	250	329	394	315	-18.10%
Total drivers - excluding not stated	691	709	610	691	800	703	-1.64%
Total drivers	712	733	642	712	833	730	-2.47%
No. drinking drivers per 100 involved	37.3	40.5	41.0	47.6	49.3	44.6	-16.25%
No. drunk drivers per 100 involved	32.3	34.7	32.5	38.4	36.4	35.5	-9.02%

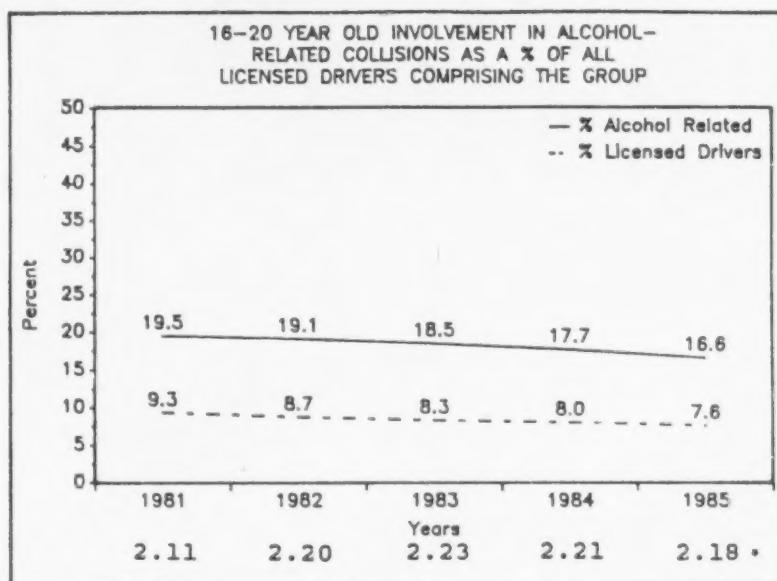
Table 2-1b

SOBRIETY OF DRIVERS INVOLVED IN FATAL COLLISIONS Urban Comparison							
Condition of Driver (Sobriety)	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
Had been drinking - ability impaired	69	61	62	68	73	66	4.55%
Had been drinking - ability not impaired	14	17	9	11	17	14	3.70%
Had been drinking - sobriety unknown	5	5	7	15	22	12	-59.18%
Had not been drinking	144	152	142	127	150	143	0.88%
Not stated	24	17	30	28	38	28	-15.04%
Total drivers drinking	88	83	78	94	112	92	-4.09%
Total drivers - excluding not stated	232	235	220	221	262	235	-1.07%
Total drivers	256	252	250	249	300	263	-2.57%
No. drinking drivers per 100 involved	37.9	35.3	35.5	42.5	42.7	39.0	-2.78%
No. drunk drivers per 100 involved	29.7	26.0	28.2	30.8	27.9	28.2	5.49%

Alcohol Involvement By Age Group

Drivers under 30 years of age continue to be over-represented in alcohol-related collisions. The 16-20 year old group comprised 7.6% of all licensed drivers in the state in 1985 but were involved in 16.6% of all alcohol-related collisions. This was an over-representation ratio of 2.18, meaning this age group was involved in slightly more than 2 times more alcohol-related collisions than the percentage of licensed drivers it represented (Figure 2-6). The over-involvement ratio for drivers aged 21-24 in 1985 was 2.57. This age group's over-involvement ratio has climbed steadily since 1981 (Figure 2-7). In 1984 the 25-29 year age group was involved in 1.55 times more alcohol-related collisions than the percentage of licensed drivers the group represented (Figure 2-8). The age group, 30-54 was under-represented by a ratio of .73 last year (Figure 2-9). The remaining age group, 55 years and older was also under-represented by a ratio of .26 last year (Figure 2-9a).

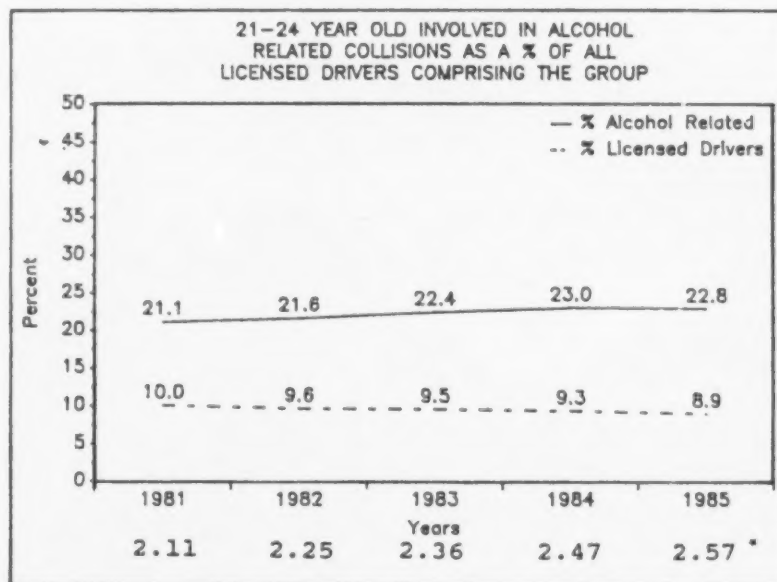
Figure 2-6



* Ratio:

Over-involvement in alcohol-related collisions compared to % of licensed drivers in population

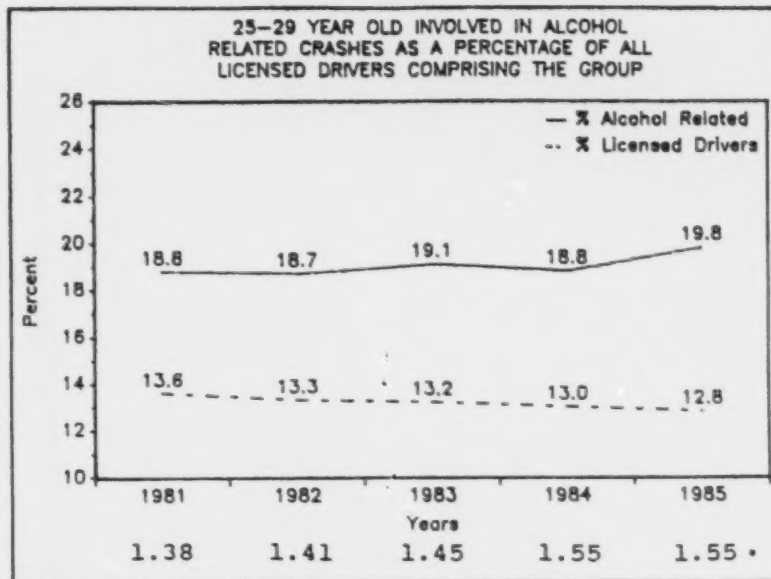
Figure 2-7



*Ratio:

Over-involvement in alcohol related collisions compared to % of licensed drivers in population

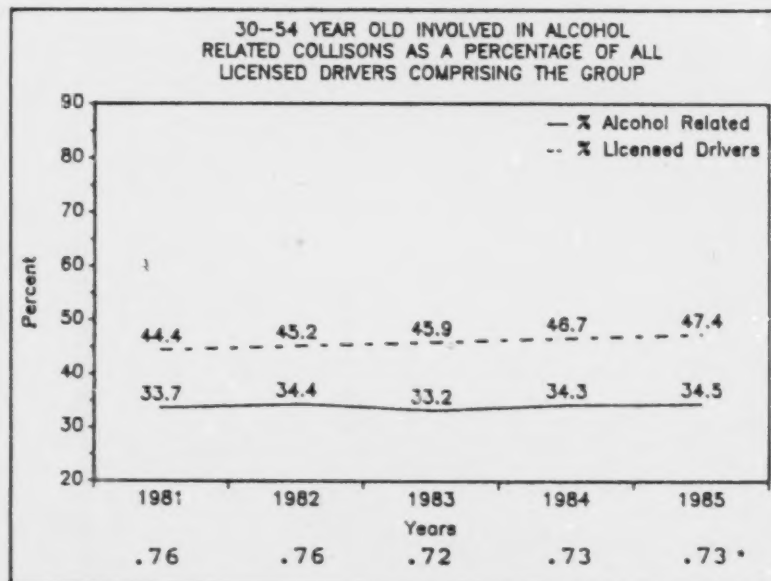
Figure 2-8



* Ratio:

Over-involvement of alcohol-related collisions compared to % of licensed drivers in population

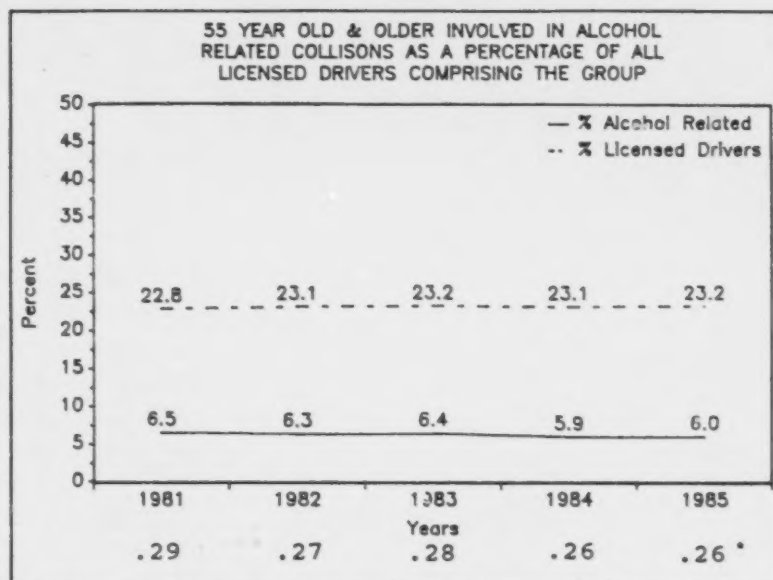
Figure 2-9



* Ratio:

Under-involvement in alcohol-related collisions compared to % of licensed drivers in the population

Figure 2-9a



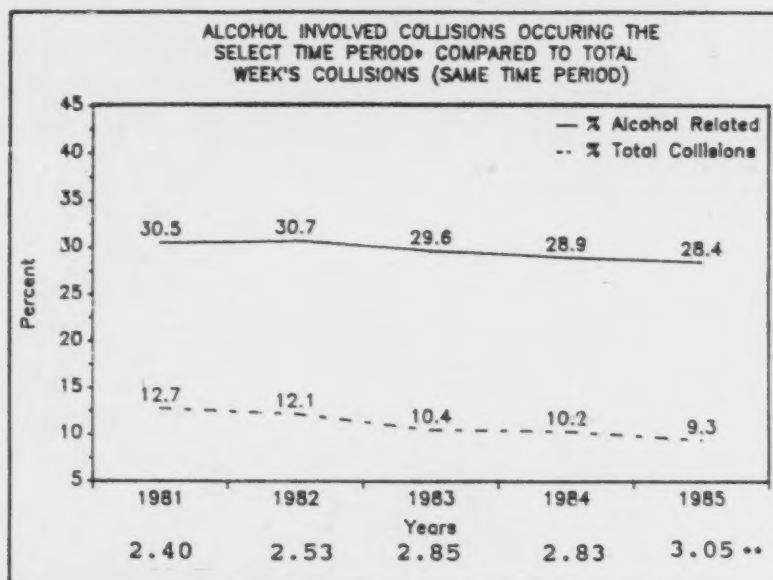
* Ratio:

Under-involvement in alcohol-related collisions compared to % of licensed drivers in the population.

Weekend Alcohol Involvement

In 1985 the percentage of alcohol-related collisions occurred at a rate of 1.69 times greater than all weekend collisions (Friday 6 p.m. to Sunday midnight). This was up only slightly in the over-representation ratio registered for 1984 and 1983 (Figure 2-10). In a further breakdown of weekend alcohol-related collisions comparing the percentage of alcohol-involved collisions occurring Friday and Saturday between the hours of 8 p.m. to 3 a.m. select time period to the percentage of the total week's collisions occurring in this time frame, the alcohol-related collisions are 3 times over-represented. This over-representation has been increasing over the past four years (Figure 2-11).

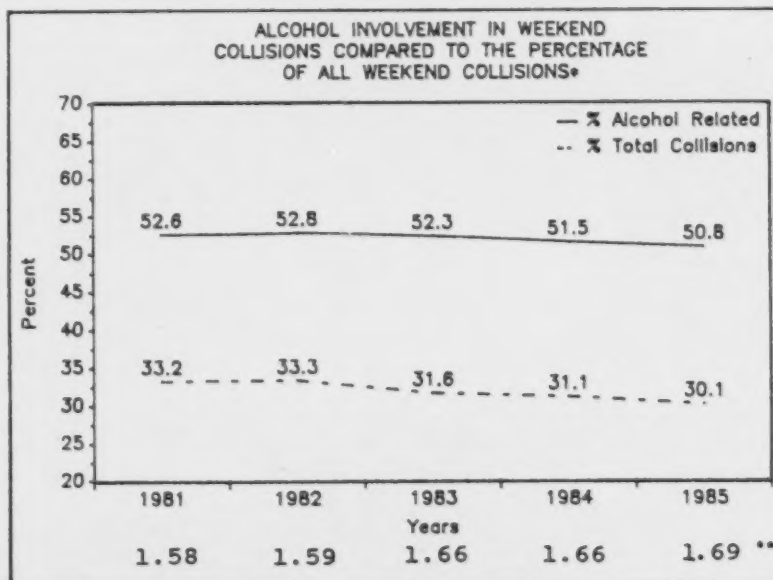
Figure 2-10



* Friday 6:00 p.m. through Sunday

** Over-involvement ratio

Figure 2-11



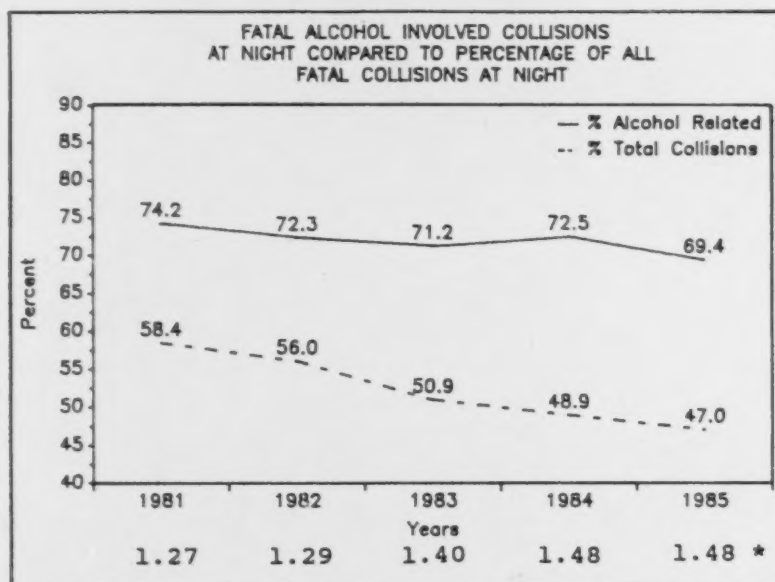
* Friday & Saturday 8:00 p.m. to 3:00 a.m.

** Over-involvement ratio

Fatal Alcohol Involved Collisions Occurring At Night

The number of all nighttime fatal collisions involving alcohol expressed as a percentage of all alcohol-related fatal collisions dropped slightly during 1985 compared to the previous year, but not as sharply as all nighttime fatal collisions. All nighttime fatal collisions in 1985 comprised 47% of the year's total fatal collisions while alcohol-related nighttime fatal collisions reach 69.4%. In 1985 alcohol-related fatal collisions at night were over-represented when compared to all nighttime fatal collisions by a ratio of 1.48, the same as 1984, but up from the 1981-83 ratios (Figure 2-12).

Figure 2-12



* Ratio:

Over-involvement ratio % nighttime alcohol fatal collisions to % nighttime fatal collisions

Ratio Of Drinking And Drunk Drivers Involved In Traffic Collisions

Slightly over 37.5% of all drivers in fatal collisions in 1985 had been drinking prior to the collision. This marked the fifth consecutive year of decline in this category following 1980's 49.4% high (Figure 2-13). Twelve percent of the drivers involved in all investigated collisions had been drinking prior to the collision. The 1985 drinking driver total of 16,742 represents a 13.5% decline from the previous four-year average (Figure 2-14)

Figure 2-13

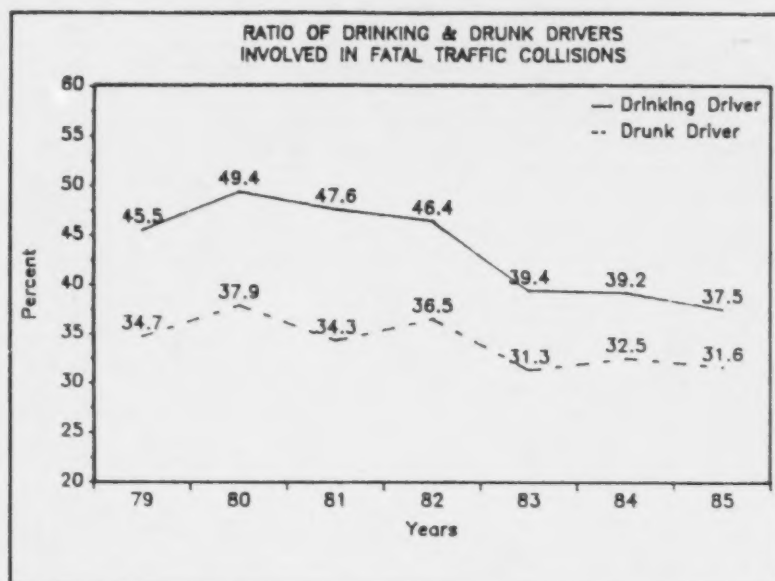
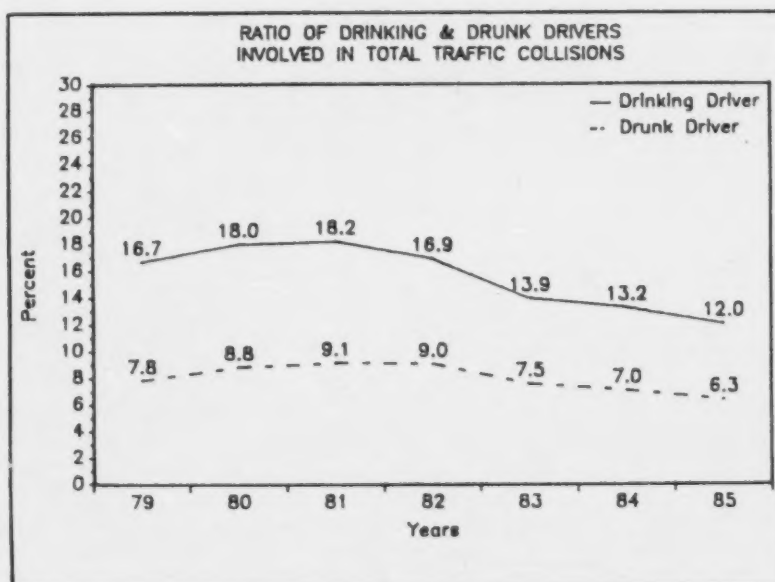


Figure 2-14



The total frequency of particular blood alcohol concentration (BAC) levels in fatal and serious injury collisions from 1981 through 1985 by age groups is presented in Table 2-2. The 16-20 and 21-24 age groups evidenced the greatest incidence of involvement for .00-.15 BAC levels. At the .16-.20 BAC range, the 21-24 age groups had the greatest frequency of occurrences. At the .21-.25 BAC levels, the 25-29 age groups had the greatest frequency. At the .26-.30 BAC levels the 30-34 age groups had the greatest frequency of occurrences. Overall, the 16-20, 21-24, and 25-29 age groups display the highest incidence of involvement at all BAC levels.

Table 2-2

CHEMICAL TEST FOR INTOXICATION IN FATAL & SERIOUS INJURY COLLISIONS Five Year Comparison										
Age	Alcohol Level							Test Given No Results	Test Refused	Total Tested
	.00-.05	.06-.10	.11-.15	.16-20	.21-.25	.26-.30	.31 & Up			
16-20	194	526	986	674	176	31	9	144	175	2,915
21-24	138	449	1,068	960	351	66	17	184	383	3,616
25-29	108	317	831	837	362	95	32	142	392	3,116
30-34	70	184	521	604	305	111	25	92	334	2,246
35-39	36	104	338	372	197	73	22	61	238	1,441
40-44	30	62	222	256	147	46	23	38	129	953
45-49	15	37	129	202	133	46	8	27	115	712
50-54	17	33	132	175	89	42	11	21	56	576
55-59	11	43	105	124	75	25	13	14	57	467
60-64	17	30	68	101	48	12	5	18	27	326
65-69	10	14	58	45	22	4	0	8	15	176
Over 69	13	18	47	39	16	7	0	5	9	154
TOTAL	659	1,817	4,505	4,389	1,921	558	165	754	1,930	16,698

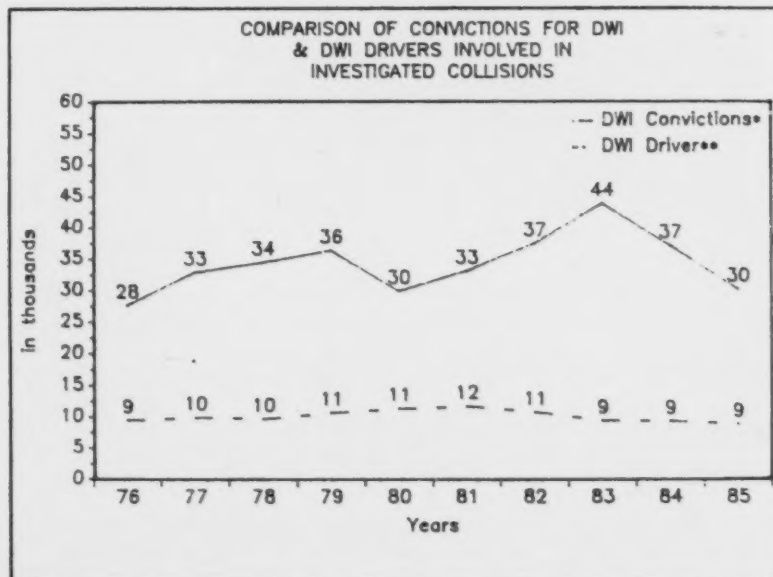
An analysis of roadway type by day of week on which alcohol-involved fatal and serious injury collisions occurred is given in Table 2-3. County roads accounted for 35.1% of the total weekly collisions compared to 30.9% for city streets. U.S. and state routes total 23.6% while the interstates and full-control access roads together contributed 9.6% of the weekly total of fatal and serious alcohol-involved collisions during 1985. The table also reveals that during this period of time, Saturday was the weekday with the greatest frequency of fatal and serious injury collisions involving alcohol. Sunday and Friday were the next highest days in that order.

Table 2-3

FATAL & SERIOUS INJURY COLLISIONS INVOLVING ALCOHOL Roadway Type by Day of Week										
Roadway Type	Day of Week							% of Total Weekly Collisions	% of Previous 4 Year Average	
	Mon	Tue	Wed	Thu	Fri	Sat	Sun			
County Roads	200	207	216	241	360	543	426	2,193	35.1%	33.5%
City Streets	191	189	217	243	284	447	358	1,929	30.9%	30.4%
U.S. & State Routes	139	139	130	172	233	386	274	1,473	23.6%	25.8%
Interstate & Full Control	54	62	52	56	105	146	122	597	9.6%	9.4%
Other Routes	5	3	5	5	7	18	14	57	0.9%	0.9%
Total	589	600	620	717	989	1,540	1,194	6,249	100.0%	100.0%
% of Total	9.4%	9.6%	9.9%	11.5%	15.8%	24.6%	19.1%	100.0%		
% of Change 85 - 4 Year Average	9.1%	9.2%	10.1%	11.4%	16.0%	25.0%	19.1%	100.0%		

In 1985 the number of convictions for alcohol-related traffic offenses declined for the second consecutive year. The 30,063 convictions in 1985 for DWI/Physical Control violations represented a drop of 13,772 convictions from the record high year of 1983. In 1985 the number of DWI drivers involved in investigated collisions declined to 8,689, the fourth straight year the number in this category have dropped (Figure 2-15).

Figure 2-15



* Fiscal Year

** Calendar Year

Note: Convictions for physical control of vehicle while under the influence decreased from 10,520 in FY 1979 to 1,866 convictions in FY 1980. DWI convictions increased from 25,788 in FY 1979 to 27,942 in FY 1980.

Data for collision involvement by driver's age and percent of vehicle miles travel for each age group reveal that the 16-17 year olds have the greatest over-representation in all reported collisions at 3.32. The 18 year olds were the second most over-represented group. The age group with the greatest under-representation based on miles traveled was the 45-54 category. Those in the 21 year old bracket displayed the greatest over-representation in alcohol-related collisions based on miles traveled. Second in this ranking was the 18 year old group. The age group 55-64 recorded the greatest under-representation in alcohol-involved collisions with a 0.35 ratio (Table 2-4).

Table 2-4

ALL REPORTED ACCIDENTS & ALCOHOL INVOLVED ACCIDENTS Comparison of Miles Traveled					
Driver Age	% of Vehicle Miles Traveled*	Drivers in All Accidents**		Alcohol Involved Accidents**	
		% of Total	Over/Under Ratio	% of Total	Over/Under Ratio
16-17	1.95	6.47%	3.32	3.71%	1.90%
18	1.97	4.18%	2.12	4.07%	2.07%
19	2.31	3.75%	1.62	4.12%	1.78%
20	2.74	3.56%	1.30	4.72%	1.72%
21	2.31	4.19%	1.81	7.19%	3.11%
22-24	8.38	10.47%	1.25	15.73%	1.88%
25-34	27.40	27.07%	0.99	33.19%	1.21%
35-44	19.48	17.39%	0.89	14.84%	0.76%
45-54	17.53	9.22%	0.53	6.40%	0.37%
55-64	10.73	7.05%	0.66	3.76%	0.35%
65 & Over	5.10	6.65%	1.30	2.26%	0.44%

* Source - National Accident Sampling Systems (NASS) 1979-1980

** Source - Accident Records Unit - Washington State Patrol

Table 2-5 presents a summary of the number of persons killed and injured, number of property damage collisions, and total investigated collisions for drivers under the influence, all drinking drivers, and non-drinking drivers. All categories of non-drinking driver collisions showed increases over 1984. In contrast, drivers under the influence showed decreases in "Persons Killed", "Persons Injured," as well as "Property Damage Only Collisions." Total "DUI" Collisions recorded a 5.2% overall decrease. Alcohol-related (Drivers Had Been Drinking) collisions showed a similar reduction when compared to the previous year.

Table 2-5

SUMMARY OF PERSONS KILLED & INJURED IN ALCOHOL RELATED COLLISIONS Two Year Comparison									
Status	Drivers Under the Influence			Drivers Who Had Been Drinking*			Non-Drinking Driver Collisions		
	1985	1984	% of Change	1985	1984	% of Change	1985	1984	% of Change
Persons Killed	326	331	-1.5%	379	386	-1.8%	377	376	0.3%
Persons Injured	7,171	7,517	-4.6%	12,384	13,118	-5.6%	43,415	41,067	5.7%
Disabling	1,485	1,666	-10.9%	2,425	2,733	-11.3%	5,518	5,330	3.5%
Non-Disabling	3,553	3,674	-3.3%	8,015	8,332	-5.0%	16,984	16,156	5.1%
Possible Injury	2,133	2,177	-2.0%	3,944	4,053	-2.7%	20,913	19,581	6.8%
Property Damage Accidents	3,768	4,019	-6.2%	7,632	7,809	-2.3%	46,442	42,354	9.7%
TOTAL ACCIDENTS***	8,625	9,101	-5.2%	16,017	16,609	-3.6%	76,553	70,623	8.4%

*Including Drivers Under the Influence

**Less than 1/10th of one percent

***Investigated Accidents Only

Table 2-6 displays the number of persons killed and injured by drivers "under the influence" and "who had been drinking" by months for 1983, 1984, and 1985. The summer months typically show a higher incidence of persons killed or injured for both categories of alcohol-involved drivers.

Table 2-6

PERSONS KILLED & INJURED IN ALCOHOL RELATED COLLISIONS BY MONTH Three Year Comparison												
Month	From Drivers "Under the Influence"						From Drivers Who "Had Been Drinking"					
	Persons Killed			Persons Injured			Persons Killed			Persons Injured		
	1985	1984	1983	1985	1984	1983	1985	1984	1983	1985	1984	1983
January	15	16	23	505	486	527	18	20	29	786	795	893
February	15	22	12	422	494	568	17	23	14	733	822	910
March	28	23	24	611	671	631	30	30	27	1,017	1,112	1,031
April	40	25	27	590	621	670	43	32	38	979	1,108	1,207
May	41	28	23	624	624	689	48	33	24	1,098	1,133	1,236
June	33	36	29	637	621	665	39	42	33	1,152	1,132	1,183
July	39	40	29	763	700	719	43	48	37	1,294	1,254	1,239
August	28	36	35	713	739	622	35	40	40	1,303	1,267	1,039
September	29	32	33	662	716	599	31	35	37	1,133	1,257	973
October	25	28	22	624	694	647	31	33	29	1,099	1,139	1,139
November	17	27	24	509	546	613	22	32	33	938	1,015	1,162
December	16	18	18	511	605	496	22	18	23	852	1,084	897
TOTAL	326	331	299	7,171	7,517	7,446	379	386	364	12,384	13,118	12,909

*Including Drivers Under The Influence

YOUTH INVOLVEMENT

Overview

Drivers 20 years old and under comprised 7.6% of all licensed drivers in the state in 1985, yet this age group was involved in 17.9% of the total 1985 collisions. This was an collision over-representation rate 2.34 times higher than the percentage of licensed drivers comprising this group. The 21-24 age group was involved in 14.6% of the total collisions while comprising 8.9% of all licensed drivers, producing an over-representation factor of 1.63. The 25-29 year old group, comprising 12.8% of all licensed drivers, was involved in 14.7% for an over-representation of 1.15. All other age groups were under-represented when their percentages of collision involvement were compared to their percentages of total licensed drivers (Table 3-1).

Table 3-1

COMPARISON OF DRIVERS INVOLVED TO NUMBER LICENSED Driver Age Distribution				
Driver Age	Involved in Collisions		% of Licensed Drivers	Over/Under Ratio
	Number	% of Total		
Under 16	710	0.39%	0.00%	0.00
16	5,106	2.79%	0.94%	2.96
17-18	14,306	7.82%	3.07%	2.54
19-20	13,319	7.28%	3.63%	2.01
21-22	14,059	7.68%	4.22%	1.82
23-24	12,675	6.93%	4.71%	1.47
25-29	26,839	14.66%	12.76%	1.15
30-34	22,505	12.30%	13.12%	0.94
35-39	18,679	10.21%	12.19%	0.84
40-44	13,032	7.12%	9.21%	0.77
45-49	9,314	5.09%	6.96%	0.73
50-54	7,494	4.09%	5.93%	0.69
55-59	6,818	3.73%	5.78%	0.64
60-64	6,039	3.30%	5.69%	0.58
65-69	4,632	2.53%	4.77%	0.53
70 & Over	7,489	4.09%	7.00%	0.58

Youthful Driver Involvement In Collisions By First Harmful Event

In 1985, 72.6% of those drivers aged 24 years and younger who were involved in all collisions collided with other moving vehicles. This type of collision also resulted in the greatest percentage of fatal collisions (41.7%) and injury collisions (68.1%). Single vehicle collisions with fixed objects led to the second largest percentage of youthful driver involvement in total, fatal and injury collisions, at 16.3%, 26.8% and 18.2% respectively (Table 3-2).

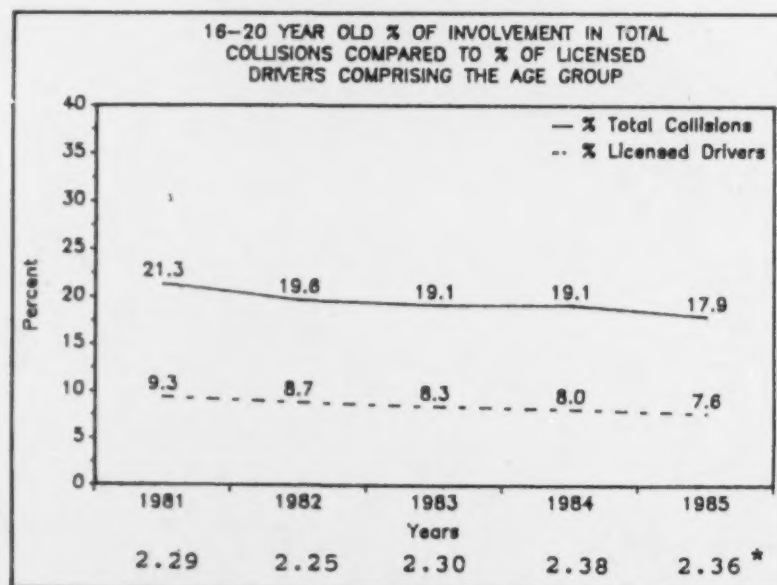
Table 3-2

YOUTHFUL DRIVER INVOLVEMENT IN COLLISIONS By First Harmful Event						
Type of Collision	Total Collisions		Fatal Collisions		Injury Collisions	
	Number	% of Total	Number	% of Total	Number	% of Total
Collision with other moving motor vehicles	37,927	72.6%	123	41.7%	14,273	68.1%
Collision with parked vehicle	2,140	4.1%	8	2.7%	488	2.3%
Collision with fixed/other object	8,500	16.3%	79	26.8%	3,821	18.2%
Overturning & other non collision	2,631	5.0%	56	19.0%	1,609	7.7%
Other collisions, including ped., pedal., animal, & R.R. train	1,036	2.0%	29	9.8%	771	3.7%
TOTAL	52,234	100.0%	295	100.0%	20,962	100.0%

Youthful Collision Involvement By Age Group

In 1985 the 16-20 year old age group was involved in 17.9% of all collisions. This group's over-representation ratio of 2.36 was down from the 2.38 ratio for 1984. It is also the highest over-representation ratio for any age group (Figure 3-1). The 21-24 year old age group increased its over-representation ratio from 1.5 to 1.6 (Figure 3-2). The 25-29 age group posted an over-representation ratio of 1.15, up slightly from the previous year's 1.13 (Figure 3-3). The 30-54 age group continued to be under-represented in total collisions compared to this group's percentage of all licensed drivers, as are the 55 year old and older age group (Figure 3-4 & 3-4a).

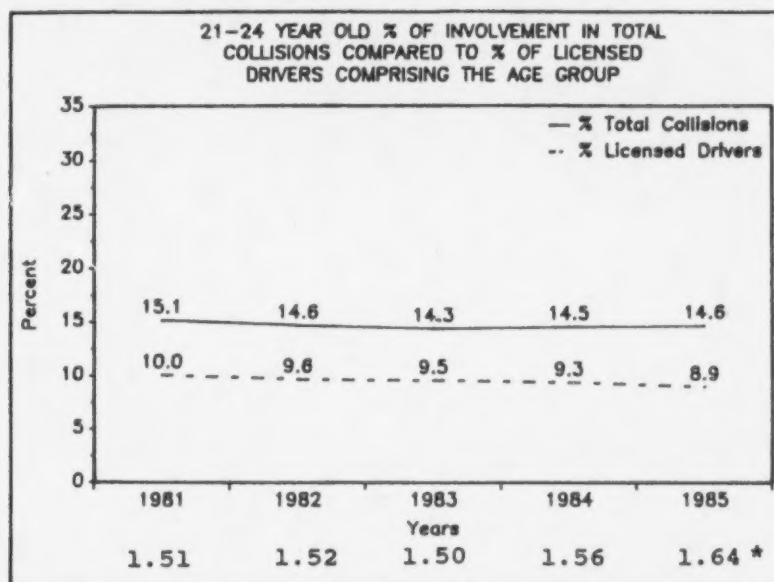
Figure 3-1



* Ratio:

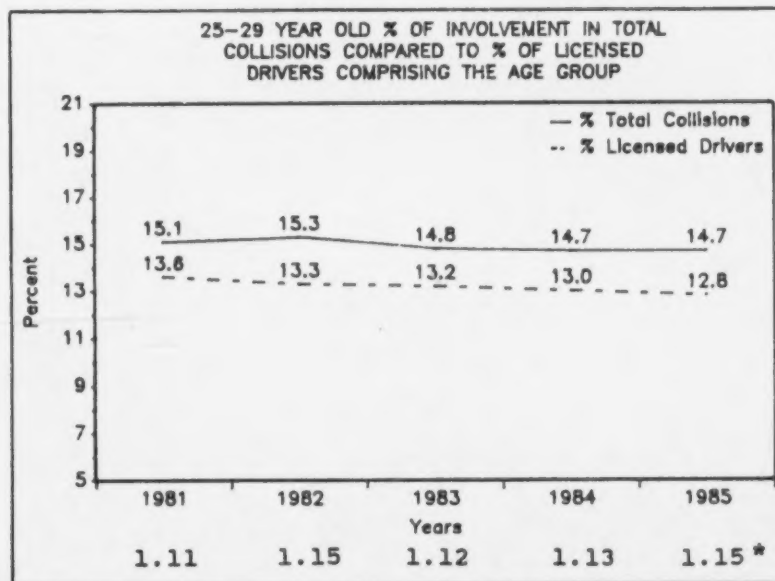
Over-representation ratio

Figure 3-2



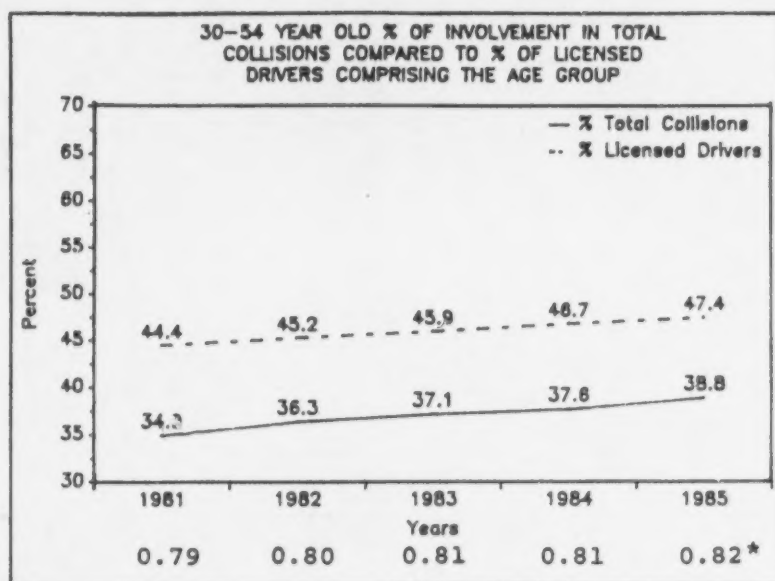
* Ratio:
Over-representation

Figure 3-3



* Ratio:
Over-representation ratio

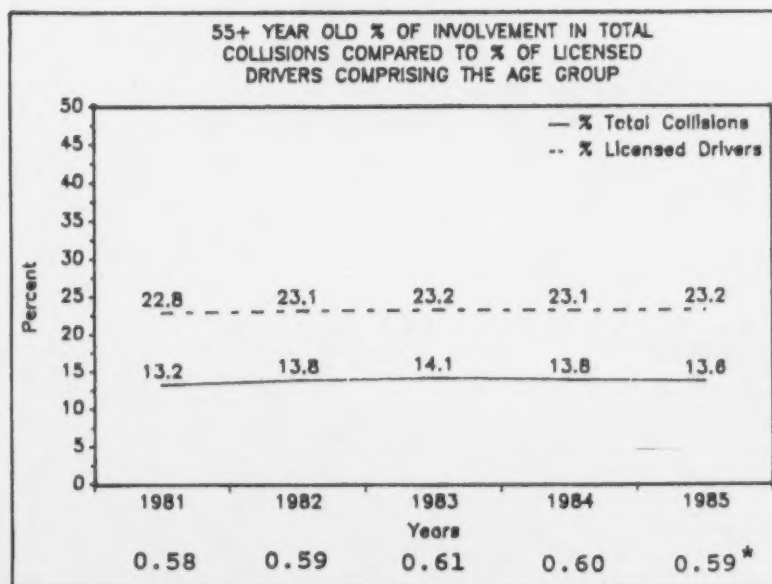
Figure 3-4



* Ratio:

Under-representation

Figure 3-4a



* Ratio:

Under-representation ratio

Collision Severity By Area For Youthful Drivers

In 1985, The urban and rural mix of collisions involving youthful drivers (24 years old and younger) remained constant with the urban areas recorded 57.8% of the total and the rural areas contributing to 42.2% (Figure 3-5). In 1985, youthful driver injury collisions also remained constant with 1984 recording 53.7% urban and 46.3% rural (Figure 3-6). Youthful driver fatal collisions continued to be far more common in rural areas. In 1985, 73.9% of the fatal collisions involving youthful drivers occurred in rural areas (Figure 3-7).

Figure 3-5

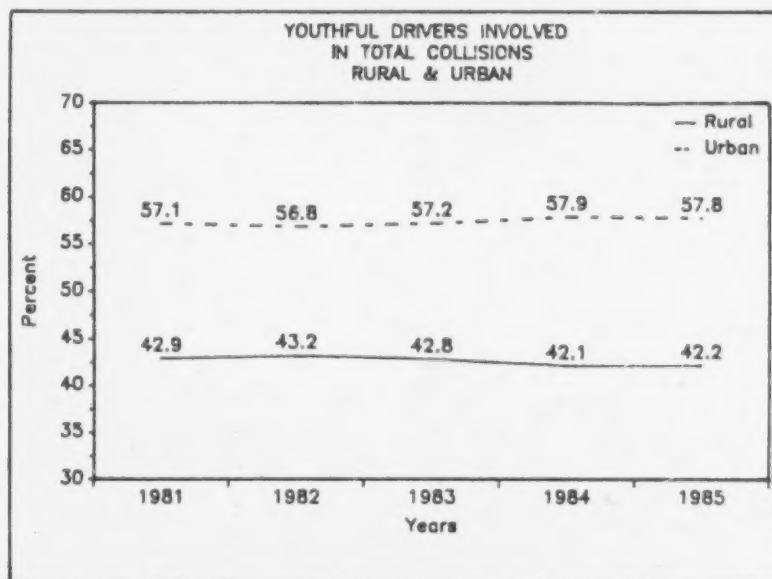


Figure 3-6

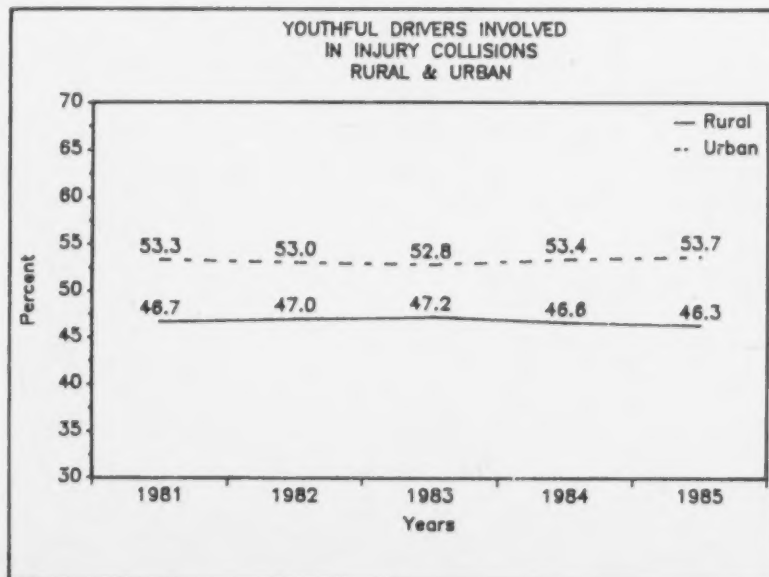
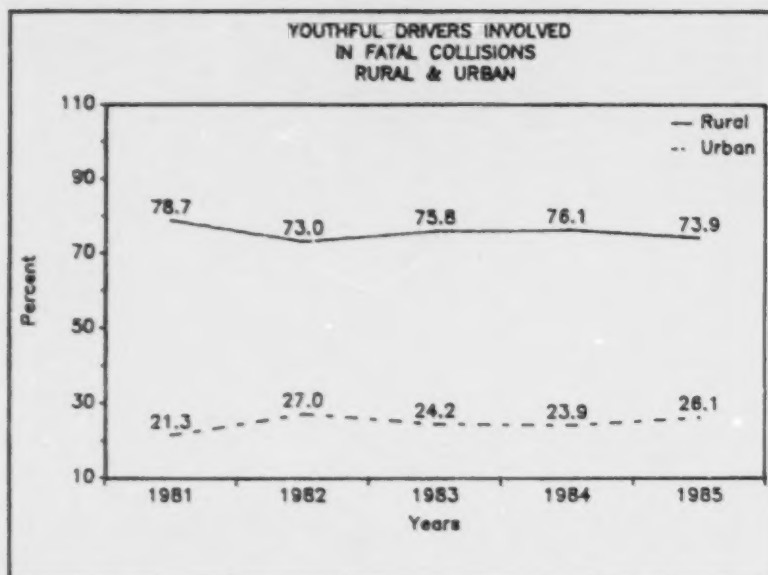


Figure 3-7



Youthful Driver Involvement By Time

In 1985, 22.5% of all the rural fatal collisions and 16.7% of all rural reported collisions involving youthful drivers occurred on Saturday (Figure 3-8). In urban areas, Saturday had the highest occurrence of fatal collisions involving youthful drivers (32.5%), but Friday recorded the greatest percentage of total collisions (19.4%) for the group (Figure 3-9).

Figure 3-8

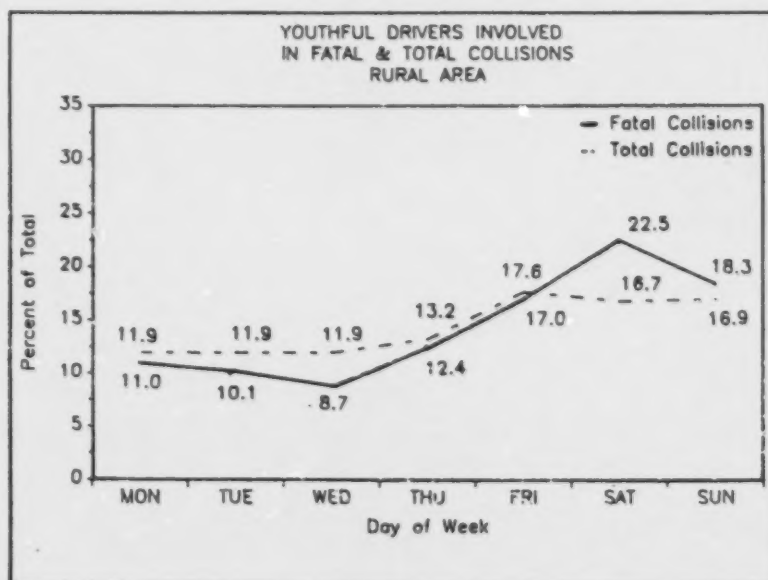
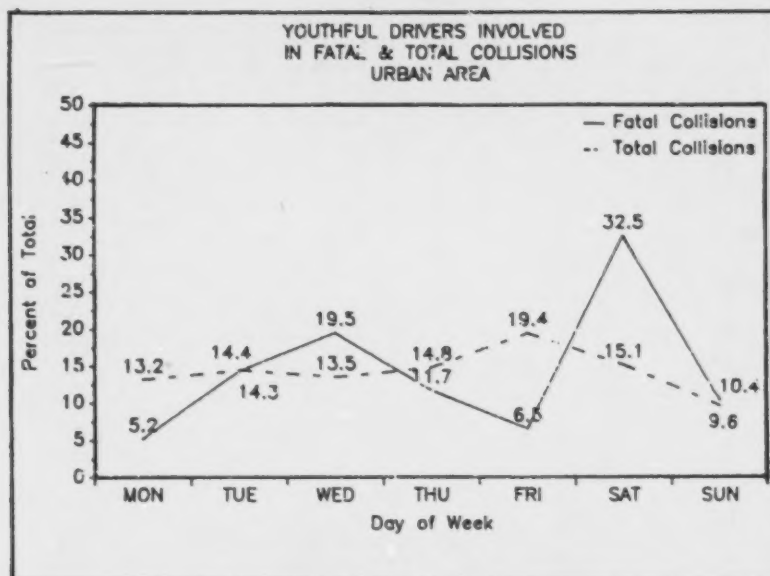


Figure 3-9



In rural areas, the greatest percentage (17.4%) of youthful driver involvement in fatal collisions in 1985 occurred from 6 p.m. to 9 p.m. The greatest percentage of total collision involvement (22%) for these drivers was from 3 p.m. to 6 p.m. (Figure 3-10). In the urban areas, the greatest youthful involvement by time period in fatal collisions was 23.4% in the midnight to 3 a.m. period. The 3 p.m. to 6 p.m. time period recorded 26.4% of the youthful drivers involved in total urban collisions (Figure 3-11).

Figure 3-10

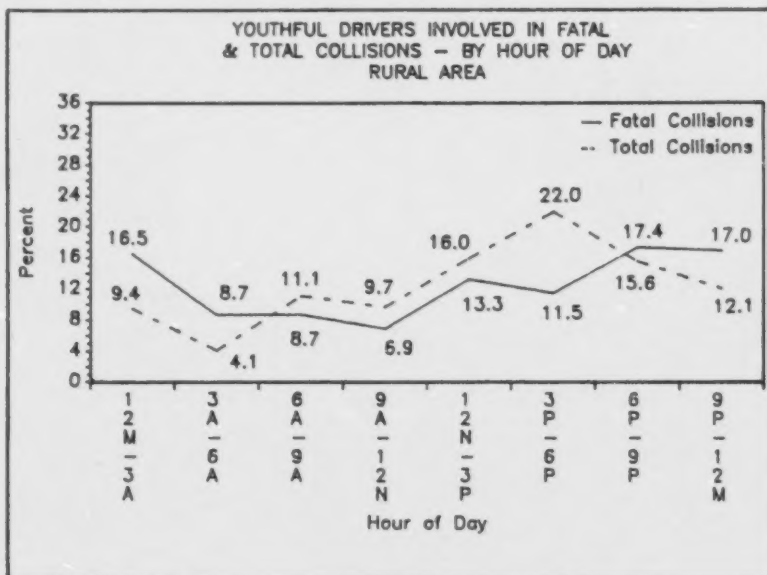
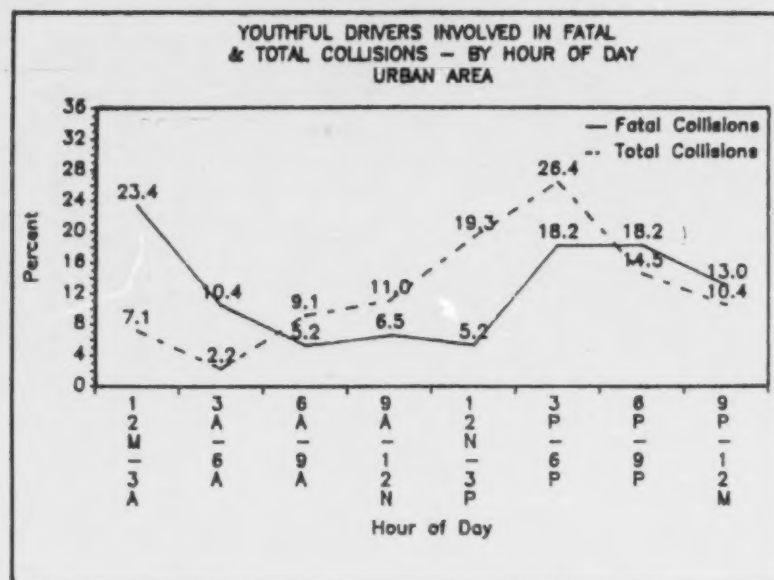


Figure 3-11



SAFETY RESTRAINT USAGE

Overview

In 1985, out of a total of 172,277 occupants involved in total collisions, 60,392 were using safety restraints. This is a usage rate of 35.1% and marks the fourth consecutive year of increases in safety restraint usage since 1981 (Table 4-1).

Table 4-1

RESTRAINT USAGE RATE Five Year Comparison										
Status	1985 %		1984 %		1983 %		1982 %		1981 %	
Restraints Used	60,392	35.1%	45,214	28.0%	31,751	21.0%	24,763	17.8%	25,190	15.9%
No Restraints Used	111,885	64.9%	116,299	72.0%	119,670	79.0%	114,686	82.2%	132,921	84.1%
TOTAL	172,277	100.0%	161,513	100.0%	151,421	100.0%	139,449	100.0%	158,111	100.0%

In 1985, 60,376 persons out of a total 172,235 collision-involved occupants were using a restraining device. Child restraints were used by 2,252 collision-involved children (Table 4-2). Looking at all restraining devices by usage and non-usage categories, it appears that with the safety restraint usage, injuries were less likely to occur and those that did occur were less severe (Appendix C).

Table 4-2

RESTRAINT USAGE & INJURIES SUSTAINED* By Type								
Type	Restraints Used		Child Restraints**		No Restraints		Total Occupants	
	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total
Deaths	66	0.1%	1	0.0%	463	0.4%	529	0.3%
Disabling Injuries	930	1.5%	25	1.1%	4,149	3.7%	5,079	2.9%
Evident Injuries	4,437	7.3%	122	5.4%	13,269	11.9%	17,706	10.3%
Possible Injuries	7,512	12.4%	142	6.3%	13,344	11.9%	20,856	12.1%
No Injuries	47,431	78.6%	1,962	87.1%	80,634	72.1%	128,065	74.4%
TOTAL	60,376	100.0%	2,252	100.0%	111,859	100.0%	172,235	100.0%

*Excludes cases where injury severity was not stated or where restraint use was unknown.

**Included with Restraints Used Category.

In 1985, 38.8% of the female drivers used their restraints while 34.3% of the male drivers used their restraints in collisions. Female passengers had a usage rate of 36.0% compared to 29.4% for male passengers. The 0-5 age group had the highest restraint usage of any age group at 73.1%. the age group with the lowest usage rate was the 16-19 year olds at 25.4% usage (Table 4-3 and 4-3a).

Table 4-3

USAGE RATES BY SEX* Five Year Comparison					
Occupant	Percent Used Restraints				
	1985	1984	1983	1982	1981
Male Driver	34.3	27.3	22.0	19.1	17.4
Female Driver	38.8	31.4	23.6	20.0	18.2
Male Passenger	29.4	26.4	14.8	11.2	9.9
Female Passenger	36.0	28.4	18.9	15.3	12.6

*Excludes occupants where restraint use was unknown

Table 4-3a

USAGE RATES BY AGE* Five Year Comparison					
Occupant	Percent Used Restraints				
	1985	1984	1983	1982	1981
Age 0-5	73.1	66.8	42.3	32.2	26.1
Age 6-15	31.3	24.9	14.8	11.5	9.6
Age 16-24	27.0	20.8	15.2	12.9	12.6
Age 25-34	36.6	29.5	23.0	19.6	17.5
Age 35-64	39.7	32.0	23.3	22.2	20.3
Age 65 & Up	34.7	27.6	21.4	18.3	19.5

*Excludes occupants where restraint use was unknown

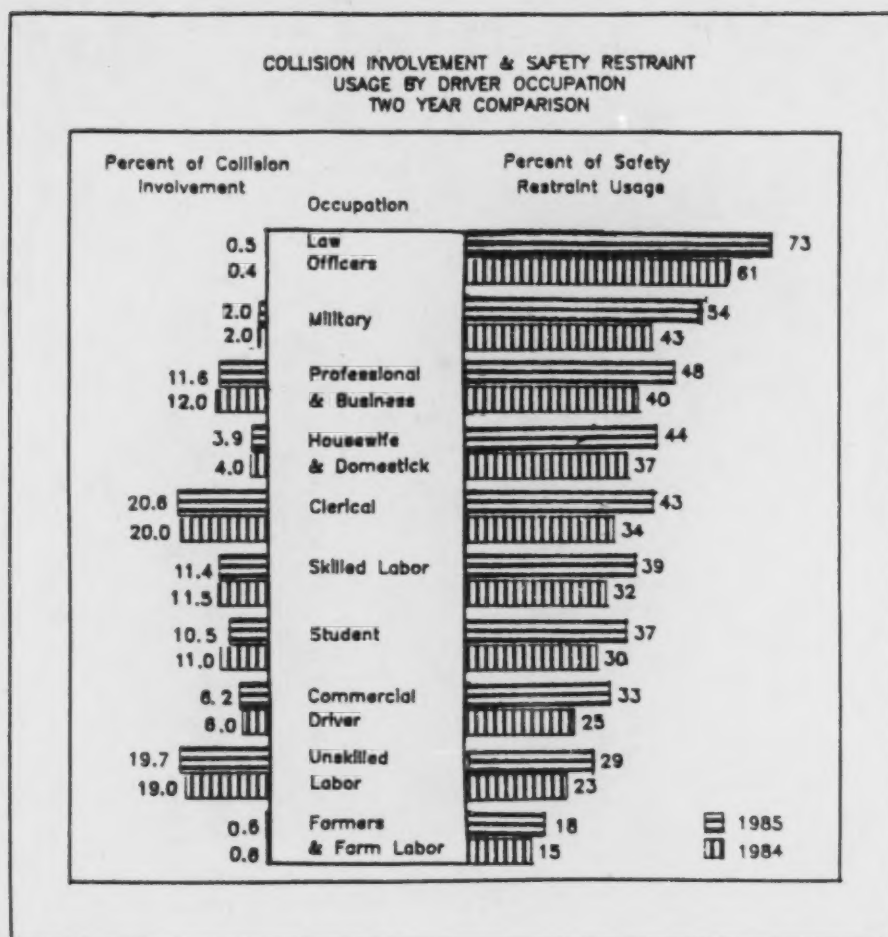
Examination of restraint usage by occupant age for 1984 reveals that the 0-1 age group had the highest usage rate at 84.9%. The lowest rate of restraint usage (22.4%) was for 14-year-old occupants (Table 4-4).

Table 4-4

SEAT BELT USAGE By Occupant Age									
Age	Seat Belt Type					Total Restraints Used		Restraints Not Used	
	Lap Belt	Shoulder Belt	Lap & Shoulder Belt	Child Restraint	Air Bag Activated	Number	% of Total	Number	% of Total
0 - 1	90	4	57	709	0	860	84.9%	153	15.1%
2	202	9	119	461	0	791	75.5%	256	24.5%
3	312	12	137	266	0	727	71.1%	295	28.9%
4	330	15	179	162	0	686	65.8%	356	34.2%
5	324	18	182	58	0	582	61.0%	372	39.0%
6	221	12	138	18	0	389	49.7%	393	50.3%
7	170	9	92	7	0	278	44.6%	345	55.4%
8	149	10	89	2	0	250	39.7%	379	60.3%
9	151	8	81	1	0	241	39.6%	367	60.4%
10	104	7	71	5	0	187	33.8%	367	66.2%
11	89	12	75	0	0	176	30.7%	398	69.3%
12	75	12	82	0	0	169	26.0%	481	74.0%
13	93	11	107	0	0	211	27.9%	546	72.1%
14	131	7	142	0	0	280	22.4%	968	77.6%
15	187	25	314	0	0	526	23.2%	1,744	76.8%
16	615	98	1,007	0	0	1,720	27.9%	4,448	72.1%
17	613	121	1,089	0	0	1,823	25.4%	5,354	74.6%
18	629	98	1,080	0	0	1,807	24.1%	5,682	75.9%
19	516	73	1,008	0	0	1,597	24.1%	5,025	75.9%
20	498	78	990	0	1	1,567	25.9%	4,483	74.1%
21 - 24	2,043	356	4,474	0	2	6,875	29.1%	16,734	70.9%
25 - 29	2,005	375	5,214	0	2	7,596	34.7%	14,296	65.3%
30 - 64	6,790	1,367	17,136	0	4	25,297	39.3%	39,051	60.7%
65 & Over	1,143	200	2,460	0	3	3,806	36.8%	6,539	63.2%
Age Unknown	26	2	22	473	0	523	84.5%	96	15.5%
TOTAL	17,506	2,939	36,345	2,162	12	58,964	35.1%	109,128	64.9%

The usage rate of safety restraints by occupation of driver ranges from a high of 73% for law officers to a low of 18% for farmers and/or farm labor. Usage rates for all occupations showed increases in 1985 over the rates for the preceding year (Figure 4-1).

Figure 4-1



Freeway travel (interstates) and other controlled access routes had the highest usage rate by vehicle occupants at 49.6%. Occupants of vehicles traveling on county roads had the lowest recorded usage rate at 31.6% (Table 4-5)

Table 4-5

RESTRAINT USAGE By Functional Class of Roadway					
Functional Class	1985	1984	1983	1982	1981
Interstate & limited	49.6%	41.0%	27.4%	29.0%	25.3%
Other state routes	34.9%	28.9%	21.1%	17.8%	16.2%
County Roads	31.6%	24.3%	17.7%	15.0%	13.7%
City Streets	32.1%	26.4%	20.1%	16.3%	14.9%
All others	29.7%	24.8%	19.8%	16.6%	16.6%

Examination of safety restraint usage by vehicle type reveals substantial increases in usage rates for all types of vehicles. The lowest usage rate (27.3%) in 1985 was recorded for those in heavy trucks (Table 4-6).

Table 4-6

RESTRAINT USAGE RATE BY TYPE OF VEHICLE DRIVERS Five Year Comparison					
Type of Vehicle	1985	1984	1983	1982	1981
Passenger car	36.8%	29.8%	22.4%	19.0%	17.2%
Light Trucks	29.8%	22.2%	16.2%	13.0%	11.2%
Heavy Trucks	27.3%	20.1%	16.0%	15.2%	13.9%
All others	34.6%	30.9%	21.5%	22.1%	15.0%

In 1985, 77.4% of the occupants were using safety restraints in all state registered vehicles involved in collisions. This is up 13.3% from the preceding year. The next highest usage rate was the 68.3% reported for "Other government (federal agency) registered vehicles." Occupants of county registered and municipal registered vehicles had the lowest usage rate of occupants in all government vehicles recording at 49.5% and 49.9% respectively. (Table 4-7).

Table 4-7

RESTRAINT USAGE RATE BY TYPE OF GOVERNMENT VEHICLES Five Year Comparison					
Type of Government Vehicle	1985	1984	1983	1982	1981
State registered vehicles	77.4%	68.3%	60.0%	65.0%	65.0%
County registered vehicles	49.5%	43.6%	32.3%	37.3%	30.1%
Municipal registered vehicles	49.9%	41.4%	35.1%	28.1%	27.7%
Other government registered vehicles	68.3%	58.6%	54.2%	44.4%	39.2%

Drivers residing within 15 miles of their collision scenes recorded the lowest seat belt usage rate in 1985. Just 35.8% in this category were using restraints. Out-of-state drivers continued to use restraints at the highest rate, 41.3%. All categories continued to record increases in restraint usage rates over previous years (Table 4-8).

Table 4-8

RESTRAINT USAGE RATE BY PROXIMITY OF DRIVER RESIDENCE Five Year Comparison					
Residence Proximity	1985	1984	1983	1982	1981
Resided within 15 miles of collision	35.3%	28.2%	22.1%	18.9%	17.3%
Resided over 15 miles	38.9%	31.1%	23.7%	21.2%	19.3%
Residing in other state	41.3%	35.1%	28.6%	24.4%	22.4%

An examination of restraint usage by seat position in 1985 reveals that occupants in the left back and right back positions were the most frequent restraint users at 42.6% and 40.8%, respectively. These positions include the greatest usage of child restraints. Drivers were the next most frequent users at 35.8%. Seat position occupants showing the least usage of restraints were those riding in the mid-front, where 21.2% were reported using restraints (Table 4-9).

Table 4-9

RESTRAINT USAGE RATE BY OCCUPANT SEAT POSITION Five Year Comparison					
Occupants	1985	1984	1983	1982	1981
Driver	35.8%	28.6%	22.5%	19.3%	17.7%
Mid-front	21.2%	17.1%	10.6%	7.6%	7.2%
Right-front	31.9%	24.6%	17.0%	14.3%	12.4%
Left-back	42.6%	36.5%	22.2%	16.4%	12.6%
Mid-back	33.3%	25.7%	14.9%	11.0%	7.7%
Right-back	40.8%	34.6%	21.9%	16.2%	12.4%
Other	20.3%	13.0%	4.8%	3.8%	2.7%
TOTAL	35.1%	27.9%	21.0%	17.8%	16.0%

Table 4-10 presents 1985 restraint usage by occupant age and seat position. The left-back and right-back for the 0-4 age group had the highest reported usage at 85.0% and 82.9%, respectively. For the 5-9 age group, the most frequent safety restraint usage also occurred in the left-back (52.7%) and right-back (57.7%) seat positions. The positions with the lowest reported usage rates for the 15-20 age group were the mid-front and mid-back seats--6.6% and 7.6%. The right-back restraints were the lesser used in the 21-24 age group. The driver continued to "buckle up" more than any other occupant for those aged 15 through 64. The right-front occupant was the most frequent restraint user at 39.1% in the 65 and over age category.

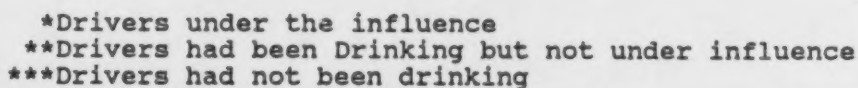
Table 4-10

RESTRAINT USAGE RATE By Occupant Age & Seat Position								
Seat Position	Age							
	0-4	5-9	10-14	15-20	21-24	25-29	30-64	65 & Over
Driver	-	-	-	28.8%	31.1%	36.2%	40.1%	36.8%
Mid-front	57.5%	32.9%	10.3%	6.6%	11.3%	12.5%	16.1%	19.4%
Right-front	73.4%	51.3%	30.4%	22.0%	26.7%	30.8%	37.2%	39.1%
Left-back	85.0%	52.7%	32.7%	16.4%	14.1%	21.7%	30.0%	23.8%
Mid-back	75.3%	38.5%	17.5%	7.6%	13.4%	8.5%	15.9%	18.4%
Right-back	82.9%	57.7%	31.4%	18.7%	7.5%	24.2%	28.3%	29.4%
Other	32.9%	28.3%	14.3%	8.1%	3.6%	7.5%	14.9%	22.2%
Seat location unknown	38.6%	31.1%	13.6%	10.2%	12.3%	6.7%	15.0%	23.8%

Table 4-11

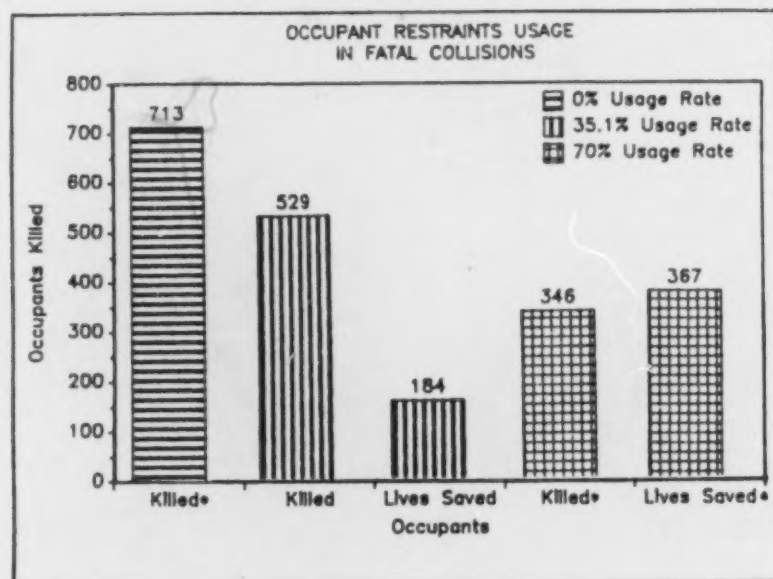
*Less than 1/10 of 1 percent

Figure 4-2



From the data obtained for restraint usage and number of fatalities in 1985, it is possible to project the number of fatalities that would have occurred under varying restraint usage rates (Figure 4-3). As shown in the middle block, occupant restraint devices were used by 35.1% of the occupants involved in collisions. At this usage rate, there were 529 fatalities. Based on this information, it is estimated that 184 lives were saved by restraint usage. The block to the left presents the situation that could have been expected to exist if no restraints were used. Assuming that the usage rate among vehicle occupants could be brought up to the 70% level, it is projected that there would have been 346 fatalities and 367 lives would have been saved. From these computations, it appears that the higher the usage rate, the greater the savings in lives. (See Appendix C for computation.)

Figure 4-3

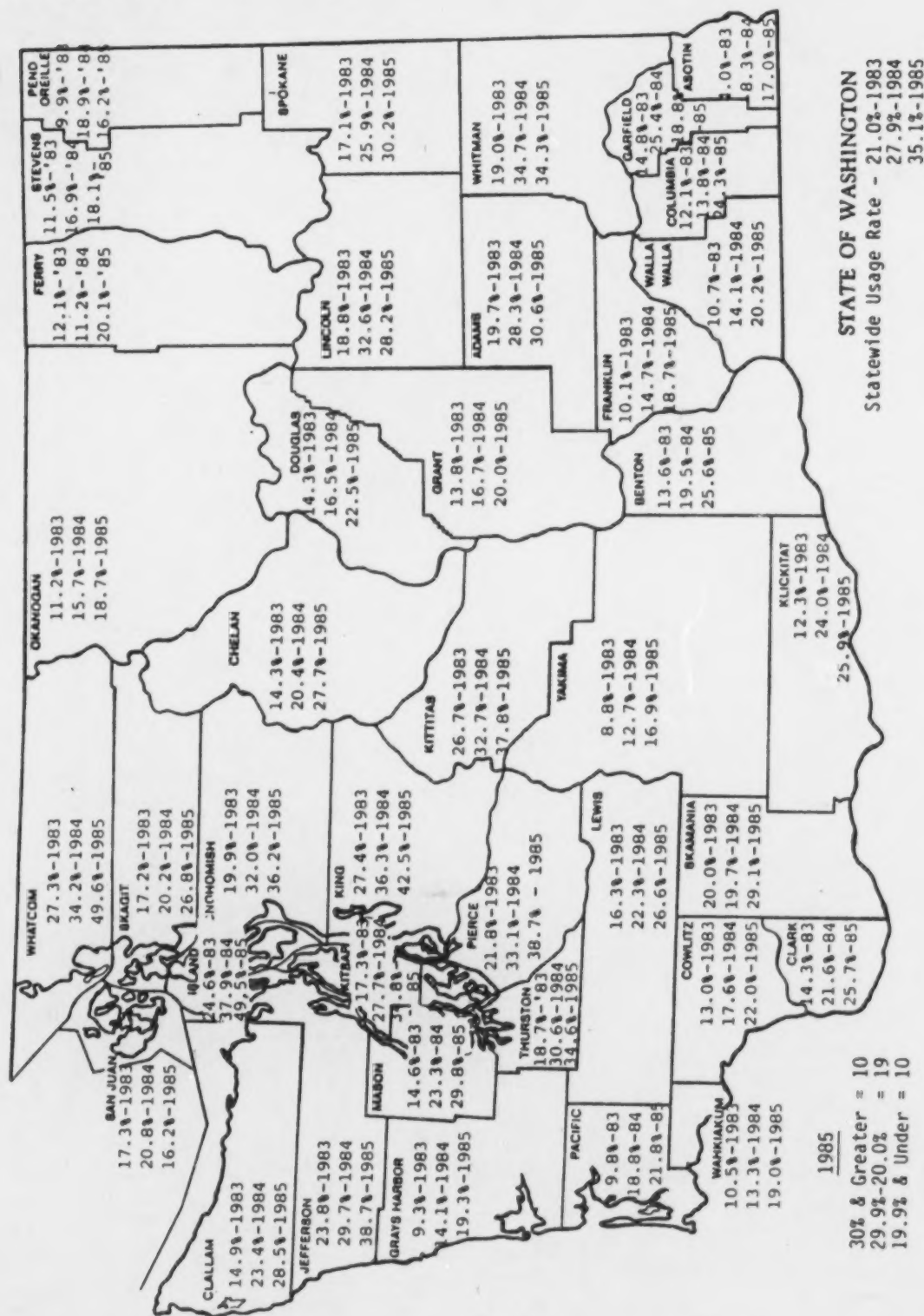


* Expected

A graphic depiction of restraint use by county is presented in Figure 4-4. Whatcom County at 49.6% had the highest usage rate of all counties in the state in 1985. Island County had the next highest usage rate at 49.5%. The two counties with the lowest usage rate was Pend Orielle County and San Juan County at 16.2%.

OCCUPANT RESTRAINT USAGE RATE BY COUNTY - 1984/85

Figure 4-4



MOTORCYCLE COLLISIONS

Overview

In 1985 motorcycle fatal collisions decreased 7.1%, when compared to the previous 4-year baseline average. Total reported collisions, however, recorded a 6.5% increase and injury collisions recorded a 5.9% increase over the baseline average. Registration in 1985 totaled 125,224 motorcycles, a decrease of 4.8% over the baseline period. The motorcycle collision rate of 2.95 for 1985 was up 11.9% over the baseline rate of 2.64 motorcycle collisions per every 100 registered (Table 5-1).

Table 5-1

MOTORCYCLE COLLISIONS SUMMARY Five Year Comparison							
Collision Severity/Exposure & Rates	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
Total Collisions	3,699	3,477	3,312	3,376	3,728	3,473	6.50%
Fatal Collisions	82	69	77	103	104	88	-7.08%
Injury Collisions	3,139	2,965	2,839	2,867	3,186	2,964	5.90%
Motorcycle Registration	125,224	126,703	127,950	131,667	139,931	131,563	-4.82%
Fatal Collision Ratio*	22.2	19.8	23.2	30.5	27.9	25.4	-12.64%
Fatal Registration Rate**	0.655	0.545	0.602	0.782	0.743	0.668	-1.97%
Total Collision Registration Rate***	2.95	2.74	2.59	2.56	2.66	2.64	11.88%

* Fatal Collisions per 1,000 motorcycle collisions

** Fatal Collisions per 1,000 motorcycles registered

*** Motorcycle involved per 100 registered

Motorcycle Collisions By Location

Table 5-2 displays a breakdown of motorcycle collision data by totals for urban and rural areas as well as the state as a whole for 1985 and 1984. In 1985 rural areas again led urban areas in the total number of fatal collisions, 51 to 31, while urban areas led rural areas in total number of injury collisions, 1,677 to 1,462.

Table 5-2

MOTORCYCLE COLLISIONS BY LOCATION Two Year Comparison						
Severity of Collision	1985			1984		
	Urban	Rural	Statewide	Urban	Rural	Statewide
Total Collisions	2,022	1,677	3,699	1,920	1,557	3,477
Fatal Collisions	31	51	82	24	45	69
Injury Collisions	1,677	1,462	3,139	1,594	1,371	2,965
Property Damage Only, Collisions	314	164	478	302	141	443
Total Fatalities	32	53	85	25	50	75
All Persons Injured	2,036	1,848	3,884	1,935	1,721	3,656
Motorcyclists Killed	31	51	82	23	49	72
Motorcyclists Injured	1,884	1,748	3,632	1,806	1,628	3,434

A further breakdown of 1985 motorcycle collisions by road type indicates that about 51.3% of the total collisions, 49.7% of the injury collisions and 36.6% of the fatal accidents occurred on city streets. About 29.0% of the injury collisions, 27.8% of the total collisions and 36.6% of the fatal collisions happened on county roads. State routes recorded 10.1% of the injury and 10.1% of the total collisions as well as 17.1% of the fatal motorcycle collisions (Table 5-3).

Table 5-3

MOTORCYCLE COLLISIONS by Location						
Location	Collisions				Motorcyclists	
	Total	Fatal	Injury	P.D. Only*	Killed	Injured
Interstate System	225	1	206	18	1	229
Other Full Control	49	3	39	7	3	39
U.S. Route No.**	81	3	69	9	3	82
State Route No.**	375	14	318	43	15	390
County Roads	1,028	30	909	89	30	1,108
City Streets***	1,899	30	1,560	309	30	1,787
Other Traffic Ways	42	1	38	3	1	44
Total	3,699	82	3,139	478	83	3,679

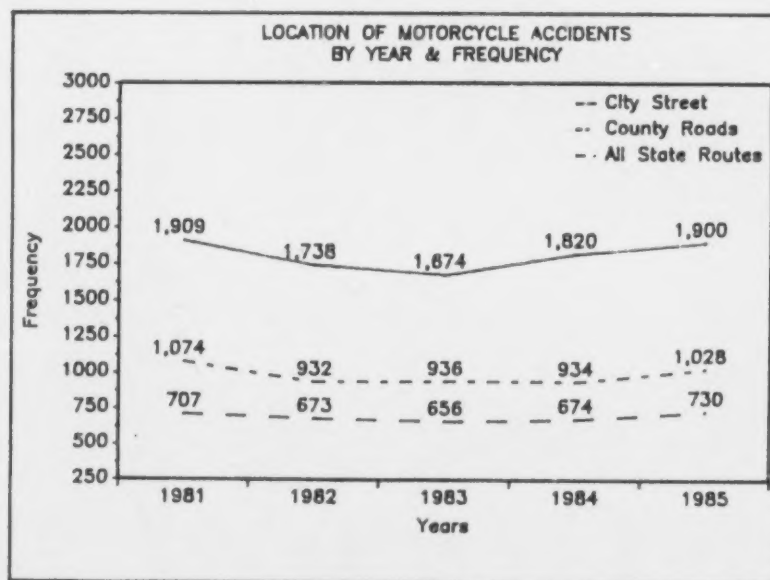
* Property Damage Only

** Excluding city streets

*** Including U.S. and State Routes in Cities

Total frequency of motorcycle collisions occurring on city streets, state highways and county roads increased during 1985. The increases on city streets and state routes is the second year of increase following a four-year decline. County roads recorded an increase after a five-year decline in the number of collisions recorded (Figure 5-1).

Figure 5-1



Motorcycle Collisions By Age Group

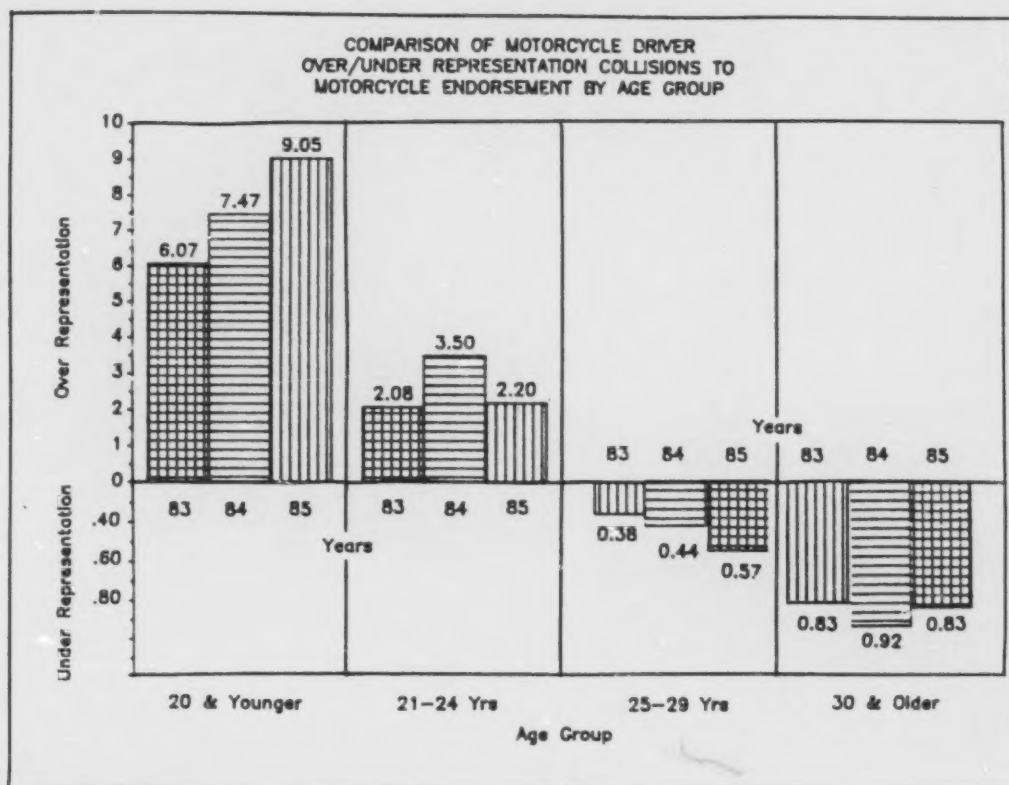
The 16-24 year old motorcycle rider continues to be over-represented in the accident population compared to the percentage of licensed motorcycle drivers comprising that age group. From age 25 on up, motorcycle riders continue to be under-represented (Table 5-4).

Table 5-4

MOTORCYCLE RIDERS Comparison of Collisions to Licensed Drivers							
Age	Fatal Collisions		Injury Collisions		Total Collisions		Over/Under Ratio
	Number	%	Number	%	Number	%	
Under 16	1	1.2%	88	2.8%	96	2.4%	0.00
16	0	0.0%	78	2.5%	85	2.1%	0.16
17-18	9	10.7%	324	10.4%	790	19.9%	1.23
19-20	10	11.9%	396	12.7%	462	11.6%	2.59
21-22	16	19.0%	430	13.8%	495	12.5%	4.38
23-24	10	11.9%	331	10.7%	391	9.9%	5.80
25-29	17	20.2%	564	18.2%	642	16.2%	19.49
30-34	9	10.7%	359	11.6%	399	10.1%	21.36
35-39	1	1.2%	223	7.2%	247	6.2%	16.01
40-44	8	9.5%	122	3.9%	141	3.6%	10.03
45-54	2	2.4%	110	3.5%	131	3.3%	10.88
55-64	1	1.2%	58	1.9%	67	1.7%	5.70
65 & over	0	0.0%	23	0.7%	20	0.5%	2.36

Figure 5-2 shows that motorcycle riders under 25 years of age, and particularly those 20 years old and younger, continue to be over-represented in total motorcycle accident involvement when compared to the percentages of licensed motorcycle riders comprising these age groups. The 25-29 year old and the 30 year old and over age group continue to be under-represented.

Figure 5-2



Principal Violations In Collisions By Age Groups

Speed too fast for conditions was the principal cause of motorcycle collisions for all age groups in 1985, contributing to 23.8% of the year's motorcycle violations. Speed over the legal limit was the second most predominant violation, contributing 12.4% to the total of motorcycle driver violations. Motorcyclists' driving while intoxicated was the third leading violation, contributing 11.0% to the violation total. This same trend was consistent for all age groups with the following exceptions: the 21-24 age group recorded a 16.6% for speed-over limit, higher than the norm. The 25-29, 30-34, and 35-44 age groups reported a higher percentage rate for driving while under the influence of alcohol than the overall population (Table 5-5).

Table 5-5

MOTORCYCLIST VIOLATIONS BY AGE Investigated Collisions Only									
Violation	Violations		Age of Violator						
	Total	%	20 & Under	21-24	25-29	30-34	35-44	45-54	55 & Over
Speed - Conditions	689	23.8%	206	172	121	70	66	24	19
Speed - Over Legal	359	12.4%	110	120	57	37	22	2	4
Failed to Yield	166	5.7%	65	38	18	14	13	4	4
D.W.I.	318	11.0%	63	84	70	50	40	5	2
Following Too Closely	148	5.1%	43	38	25	14	15	7	3
Improper Passing	173	6.0%	64	39	29	15	17	4	2
Operating Defective Equipment	115	4.0%	44	19	14	16	14	4	2
Disregard Signs/Signals	116	4.0%	31	36	20	9	11	1	3
Over Centerline	68	2.3%	21	13	9	11	6	3	3
Other Violations	744	25.7%	228	165	121	79	67	29	22
Total	2,896	100.0%	875	724	484	315	271	83	64
									80

Motorcycle Collisions By First Harmful Event

In 1985 the most common first harmful event causing a single motorcycle collision was overturning. This cause predominated for all age groups. In multiple vehicle collisions involving motorcycles, the angular collision was most prevalent (14.2%). Rear-end collisions constituted the next most common event (13.8%) in multiple vehicle motorcycle collisions (Table 5-6).

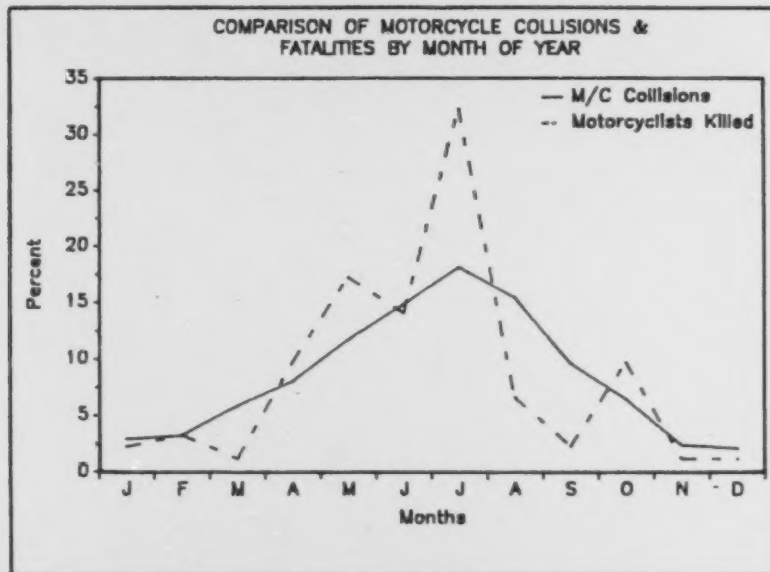
Table 5-6

MOTORCYCLE COLLISIONS By First Harmful Event									
Type of Collision	Collisions		Age of Motorcyclist						
	Total	%	20 & Under	21-24	25-29	30-34	35-44	45-54	55 & Over
Single Motorcycle Collision									
Struck Fixed Object	439	12.4%	123	120	78	51	42	17	8
Struck Other Object	12	0.3%	7	0	1	3	0	1	0
Overturned	932	26.3%	222	240	175	108	117	40	30
Motorcycle-Pedestrian	24	0.7%	11	2	5	0	4	1	1
Motorcycle-R.R. Train	0	0.0%	0	0	0	0	0	0	0
Motorcycle-Pedalcyclist	14	0.4%	5	4	3	2	0	0	0
Motorcycle-Animal	70	2.0%	13	12	15	11	11	5	3
Non-Collision	32	0.9%	12	6	6	3	4	0	1
Total Single Motorcycle Collisions	1,523	42.9%	393	384	283	178	178	64	43
Multiple Vehicle Collision									
Head-on	35	1.0%	12	8	7	3	3	1	1
Rear-end	491	13.8%	153	117	81	51	51	24	14
Sideswipe	174	4.9%	40	44	28	29	21	9	3
Angular Direction	503	14.2%	158	116	99	52	56	7	15
Enter/Leave Driveway	419	11.8%	142	112	68	40	43	10	4
One Left/One Straight-Opp. Dir.	258	7.3%	69	72	50	29	20	12	6
Other Multiple Vehicle Collision	145	4.1%	45	33	26	17	16	4	4
Total Multiple Vehicle Collisions	2,025	57.1%	619	502	359	221	210	67	47
TOTAL MOTORCYCLE COLLISIONS	3,548	100.0%	1,012	886	642	399	388	131	90

Time Of Motorcycle Collision Occurrence

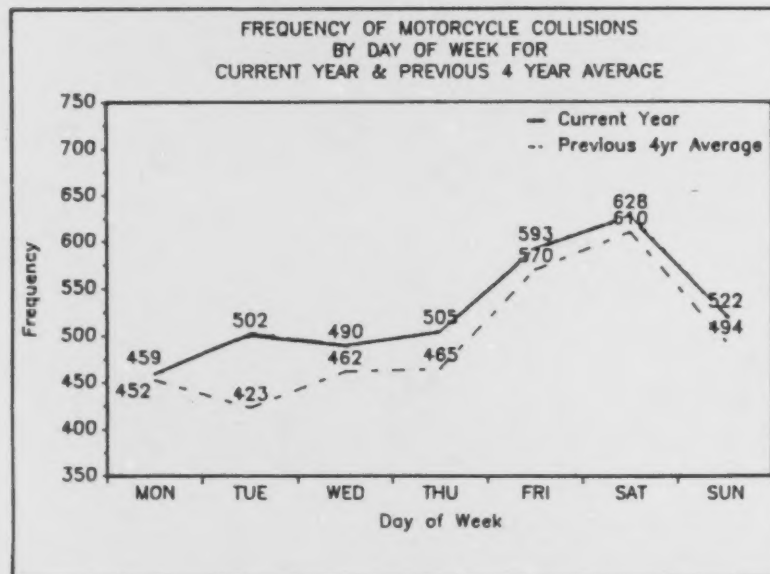
The warmer weather months (June-Sept.) of 1985 recorded the greatest percentage of motorcycle collisions. May through July recorded the most fatalities (Figure 5-3).

Figure 5-3



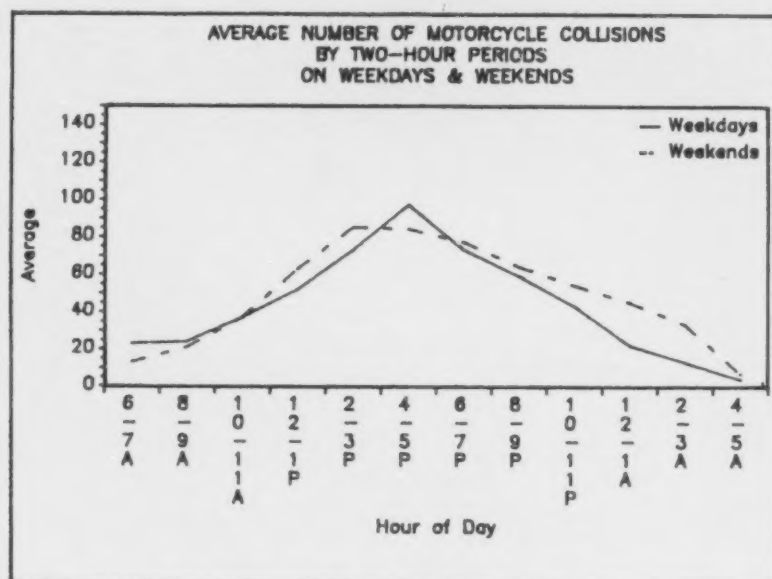
In comparing the frequencies of motorcycle collisions by day of week, Friday and Saturday are seen as the two days with the highest rate of occurrences. This trend has been consistent throughout the four-year baseline period and continued in 1985 as well. In 1985, total motorcycle collisions were down 6.4% from the average of the baseline period (Figure 5-4).

Figure 5-4



A further breakdown by hour of day when motorcycle collisions were occurring in 1985 reveals that the weekday hours from 2 p.m. to 8 p.m. constituted the most dangerous period of the day. The same 2 p.m. to 8 p.m. time frame also provided to be a dangerous time of day for weekend motorcycling. However, the weekend collisions started the sharp increase earlier in the day than the weekdays and continued at a higher level into the night and early morning hours (Figure 5-5).

Figure 5-5



PEDALCYCLES

Overview

In 1985 total pedalcycle accidents increased 16.7% over the previous four-year average. The number of pedalcyclists killed dropped 9.4% from the baseline period. The number of persons injured was up 16.7% (Table 6-1).

Table 6-1

PEDALCYCLE TRAFFIC COLLISIONS Five Year Comparison							
Severity	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
Total Collisions	1,325	1,174	1,230	1,056	1,083	1,136	16.66%
Persons Killed	12	11	14	8	20	13	-9.43%
Persons Injured	1,354	1,204	1,266	1,078	1,094	1,161	16.67%

Rural — Urban Pedalcycle Collisions

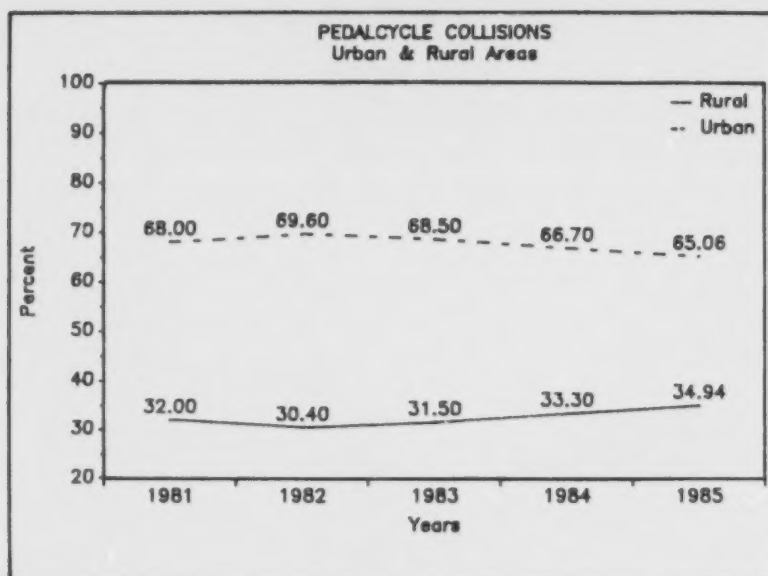
Table 6-2

RURAL & URBAN PEDALCYCLE ACCIDENTS Five Year Comparison							
Severity by Areas	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
Rural Areas							
Total Collisions	463	391	387	321	347	362	28.08%
Persons Killed	9	8	10	4	14	9	0.00%
Persons Injured	472	405	401	335	353	374	26.37%
Urban Areas							
Total Collisions	862	783	843	735	736	774	11.33%
Persons Killed	3	3	4	4	6	4	-29.41%
Persons Injured	882	799	865	743	741	787	12.07%

Total pedalcycle collisions in 1985 were up 28.1% in rural areas and up 11.3% in urban areas compared to a 4-year baseline period. The number of persons killed in rural areas in 1985 was 9, down one from the baseline, while 3 persons died in urban pedalcycle collisions, down 1 from the average of the previous 4 years. Rural injuries from pedalcycle collisions were up 26.4% in 1985 over baseline while urban injuries in this regard were up 12.1% (Table 6-2).

In 1985, 65.1% of the pedalcycle collisions occurred in urban areas, continuing a downward trend from 1982's high of 69.6%. Rural areas experienced a slight increase to 34.9% in 1985, up from the 30.4% low point in 1982 and the 33.3% occurring in 1984 (Figure 6-1).

Figure 6-1



Pedalcyclists Killed And Injured — By Age

In 1985, 25% of the pedalcyclists killed were in the 5-9 age bracket. The 10-14 age group experienced the largest number of injuries, 30.4% of the total. The number of pedalcyclists killed in 1985 fell by 9.4% from the 4-average while injuries rose 16.8% (Tables 6-3 and 6-4).

Table 6-3

PEDALCYCLISTS KILLED BY AGE Five Year Comparison							
Age	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
0-4	0	0	1	1	2	1	-100.00%
5-9	3	1	1	1	4	2	71.43%
10-14	2	2	5	1	2	3	-20.00%
15-19	2	1	4	1	5	3	-27.27%
20-24	0	0	2	0	4	2	-100.00%
25-34	1	0	0	1	0	0	300.00%
35-44	1	3	0	0	1	1	0.00%
45-54	2	0	0	1	0	0	700.00%
55-64	1	1	0	1	1	1	33.33%
65-74	0	2	1	1	1	1	-100.00%
75 & Older	0	1	0	0	0	0	-100.00%
Not Stated	0	0	0	0	0	0	0.00%
TOTAL	12	11	14	8	20	13	-9.43%

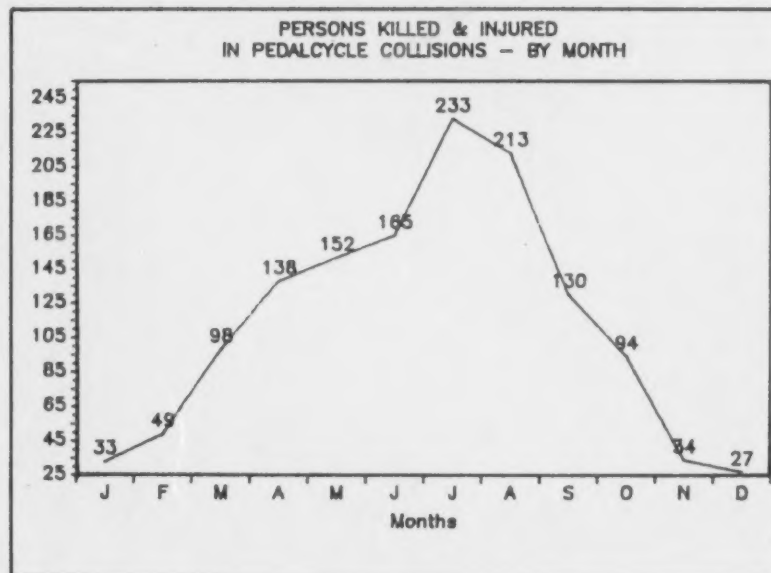
Table 6-4

PEDALCYCLISTS INJURED BY AGE Five Year Comparison							
Age	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
0-4	31	19	21	16	14	18	77.14%
5-9	251	171	180	160	180	173	45.30%
10-14	403	359	404	331	306	350	15.14%
15-19	241	240	240	197	201	220	9.79%
20-24	155	122	113	103	124	116	34.20%
25-34	143	147	139	126	118	133	7.92%
35-44	38	35	47	31	43	39	-2.56%
45-54	15	17	11	15	13	14	7.14%
55-64	8	8	11	7	12	10	-15.79%
65-74	2	11	4	4	5	6	-66.67%
75 & Older	1	2	4	2	3	3	-63.64%
Not Stated	37	41	63	56	60	55	-32.73%
TOTAL	1,325	1,172	1,237	1,048	1,079	1,134	16.84%

Pedalcycle Fatal And Injury Collisions — By Month

The months of April through September accounted for more than three-quarters of all injury and fatal pedalcycle accidents in 1985. This six-month period contained slightly more than 75% of the year's total injuries and deaths (Figure 6-2).

Figure 6-2



The city of Longview experienced the highest pedalcycle collision rate in the state during 1985 with 72.61 collisions per 100,000 population. Bremerton recorded the second highest collision rate in the state at 68.86 collisions per 100,000 population, followed by Olympia with a 66.53 pedalcycle collision rate. (Table 6-5).

Table 6-5

PEDALCYCLE COLLISION RATE BY POPULATION Cities 15,000 Population & Greater							
City	1985 Population	Pedalcycle Deaths		Pedalcycle Injuries		Total Ped Collision	
		Number	Rate*	Number	Rate*	Number	Rate*
250,000 and Over							
1. Seattle	491,400	0	0.00	228	46.40	225	45.79
100,000 to 250,000							
1. Spokane	172,100	0	0.00	89	51.71	84	48.81
2. Tacoma	160,800	2	1.24	60	37.31	59	36.69
50,000 to 100,000							
1. Bellevue	80,250	0	0.00	41	51.09	40	49.84
2. Everett	57,030	0	0.00	30	52.60	30	52.60
25,000 to 50,000							
1. Yakima	49,510	0	0.00	27	54.53	26	52.51
2. Bellingham	46,360	0	0.00	26	56.08	25	53.93
3. Vancouver	42,760	0	0.00	16	37.42	17	39.76
4. Bremerton	37,760	0	0.00	28	74.15	26	68.86
5. Kennewick	36,990	0	0.00	12	32.44	11	29.74
6. Renton	34,030	0	0.00	10	29.39	10	29.39
7. Richland	30,508	0	0.00	5	16.39	5	16.39
8. Longview	30,300	1	3.30	22	72.61	22	72.61
9. Auburn	29,880	0	0.00	7	23.43	7	23.43
10. Olympia	28,560	0	0.00	18	63.03	19	66.53
11. Redmond	28,130	0	0.00	17	60.43	14	49.77
12. Edmonds	27,880	0	0.00	7	25.11	7	25.11
13. Kent	26,979	0	0.00	9	33.36	10	37.07
14. Walla Walla	25,640	0	0.00	5	19.50	6	23.40
15,000 to 25,000							
1. Lynnwood	23,400	0	0.00	12	51.28	11	47.01
2. Pullman	22,560	0	0.00	4	17.73	4	17.73
3. Mercer Island	20,620	0	0.00	10	48.50	9	43.65
4. Kirkland	19,205	0	0.00	4	20.83	5	26.03
5. Puyallup	19,180	0	0.00	6	31.28	6	31.28
6. Pasco	18,700	0	0.00	6	32.09	6	32.09
7. Wenatchee	17,360	0	0.00	7	40.32	7	40.32
8. Aberdeen	17,250	0	0.00	4	23.19	4	23.19
9. Port Angeles	17,200	0	0.00	10	58.14	10	58.14
10. Mountlake Terrace	15,900	0	0.00	10	62.89	10	62.89

*Frequency per 100,000 population

PEDESTRIANS

Overview

The 89 pedestrians killed in 1985 were 12.8% fewer than the 4-year average. The 1,763 pedestrians injured, however, were 3.5% above the 4-year baseline (Table 7-1).

Table 7-1

PEDESTRIANS KILLED AND INJURED STATEWIDE - URBAN & RURAL Five Year Comparison							
Severity	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
Pedestrians Killed	89	97	89	101	121	102	-12.75%
Pedestrians Injured	1,763	1,710	1,701	1,705	1,696	1,703	3.52%

Locations And Age Groups Of Pedestrian Collisions

In 1985 pedestrian fatalities in rural areas decreased 17.8% from the previous 4-year average while injuries increased 3.2%. Urban area pedestrian fatalities in 1985 declined 6.9% from baseline with injuries showing a slight 3.7% increase (Table 7-2).

Table 7-2

RURAL & URBAN PEDESTRIAN ACCIDENTS Five Year Comparison							
Severity by Area	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
Rural Areas							
Pedestrians Killed	45	51	44	55	69	55	-17.81%
Pedestrians Injure	483	449	471	496	457	468	3.15%
Urban Areas*							
Pedestrians Killed	44	46	45	46	52	47	-6.88%
Pedestrians Injure	1,280	1,261	1,230	1,209	1,239	1,235	3.66%

* 2,500 population and greater

Pedestrians Killed And Injured — By Age

While the overall number of pedestrians killed decreased 12.8% during 1985, the number of older pedestrians 65 and older that were killed increased 16.7% when compared to the previous four-year average. The number of older pedestrians injured remained constant at 174 for both periods. The largest percentage increase in pedestrians injured during 1985 was in the 35-44 year age bracket recording a 32.8% increase (Tables 7-3 and 7-3a).

Table 7-3

PEDESTRIANS KILLED BY AGE Five Year Comparison							
Age	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
0-4	3	8	4	5	6	6	-47.83%
5-9	11	6	6	6	9	7	62.96%
10-14	3	8	4	6	6	6	-50.00%
15-19	3	6	13	8	14	10	-70.73%
20-24	5	9	6	9	12	9	-44.44%
25-34	11	18	12	15	18	16	-30.16%
35-44	9	8	10	9	8	9	2.86%
45-54	7	4	5	2	13	6	16.67%
55-64	9	11	8	11	9	10	-7.69%
65-74	7	6	8	13	10	9	-24.32%
75 & Older	21	13	13	17	16	15	42.37%
Not Stated	0	0	0	0	0	0	0.00%
TOTAL	89	97	89	101	121	102	-12.75%

Table 7-3a

PEDESTRIANS INJURED BY AGE Five Year Comparison							
Age	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
0-4	83	75	84	79	75	78	6.07%
5-9	203	215	216	225	246	226	-9.98%
10-14	195	194	216	209	209	207	-5.80%
15-19	208	215	209	219	180	206	1.09%
20-24	181	167	163	174	155	165	9.86%
25-34	285	255	222	235	253	241	18.13%
35-44	169	126	124	129	130	127	32.81%
45-54	99	121	97	69	84	93	6.74%
55-64	90	89	89	89	75	86	5.26%
65-74	92	89	90	61	92	83	10.84%
75 & Older	82	80	89	103	91	91	-9.64%
Not Stated	76	84	102	113	106	101	-24.94%
TOTAL	1,763	1,710	1,701	1,705	1,696	1,703	3.52%

Actions Of Pedestrians Killed And Injured

Thirty-one percent of the pedestrians killed or injured in the rural area of the state were struck while crossing the roadway, not at an intersection, during 1985. Another 15.9% were killed or injured while crossing at an intersection. The largest percentage of these pedestrians were in a nine-year age group of 5 to 14 years (Table 7-4).

Table 7-4

ACTIONS OF PEDESTRIANS KILLED & INJURED Rural Areas										
Action	Killed		Killed/Injured		Age					Number Not Stated
	Number	%	Number	%	0-4	5-14	15-24	25-64	65+	
Crossing, entering roadway at intersection	7	15.6%	84	15.9%	2	19	22	30	8	3
Not at intersection	15	33.3%	166	31.4%	13	66	30	35	15	7
Walking with traffic	5	11.1%	32	6.1%	0	6	14	8	1	3
Walking against traffic	2	4.4%	11	2.1%	0	2	4	5	0	0
Standing or working in roadway	4	8.9%	48	9.1%	0	0	16	28	3	1
Playing in roadway	0	0.0%	18	3.4%	0	7	11	0	0	0
Lying in roadway	4	8.9%	6	1.1%	0	1	1	3	1	0
Not in roadway	5	11.1%	100	18.9%	0	15	38	40	2	5
Other & Not Stated	3	6.7%	63	11.9%	0	7	18	29	6	3
TOTAL	45	100.0%	528	100.0%	15	123	154	178	36	22
% of Total Killed or Injured					2.8%	23.3%	29.2%	33.7%	6.8%	4.2%

Actions Of Pedestrians Killed And Injured

In urban areas in 1985, the most frequently involved pedestrian in fatal and injury accidents fell into the 25-64 year old age group, which accounted for 37.9% of all pedestrians killed or injured in traffic accidents. The most common contributing action of this age group was "crossing, entering roadway at intersection" (Table 7-5).

Table 7-5

ACTIONS OF PEDESTRIANS KILLED & INJURED Urban Areas										
Action	Killed		Killed/Injured		Age					Number Not Stated
	Number	%	Number	%	0-4	5-14	15-24	25-64	65+	
Crossing, entering roadway at intersection	12	27.3%	600	45.2%	10	104	103	246	117	20
Not at intersection	16	36.4%	404	30.5%	48	145	58	107	31	15
Walking with traffic	0	0.0%	27	2.0%	1	4	8	12	1	1
Walking against traffic	1	2.3%	10	0.8%	0	0	5	3	1	1
Standing or working in roadway	0	0.0%	67	5.1%	1	3	19	39	3	2
Playing in roadway	2	4.5%	29	2.2%	6	16	5	2	0	0
Lying in roadway	1	2.3%	4	0.3%	0	0	1	3	0	0
Not in roadway	5	11.4%	78	5.9%	2	7	19	43	4	3
Other & Not Stated	7	15.9%	107	8.1%	3	10	26	47	9	12
TOTAL	44	100.0%	1,326	100.0%	71	289	244	502	166	54
% of Total Killed or Injured					5.4%	21.8%	18.4%	37.9%	12.5%	4.1%

Pedestrian Collisions By Day Of Week And Hour Of Day

In 1985, Tuesday and Saturday were the two high days for pedestrian fatalities recording 21.8% and 20.5% deaths respectively. Friday recorded the highest number of reported pedestrian collisions (Figure 7-1). The 3 p.m. to 6 p.m. time period evidenced the greatest percentage of fatal pedestrian collisions at 29.7%. The 6 p.m. to 9 p.m. recorded the greatest number of reported pedestrian collisions with 24.4% (Figure 7-2).

Figure 7-1

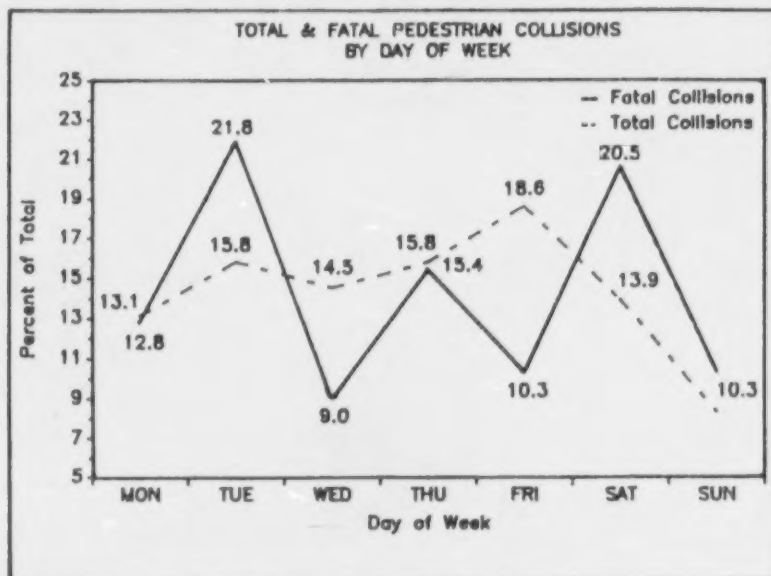


Figure 7-2

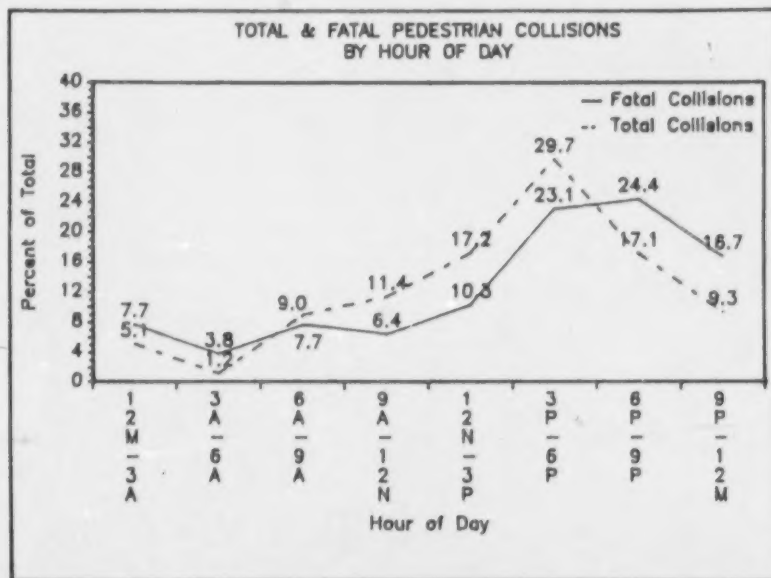


Table 7-6 below presents the 1985 number and rates for pedestrian traffic deaths, injuries, and total collisions for cities of 15,000 or more in Washington. Seattle had the greatest number of fatalities, but Kent had the greatest rate of pedestrian fatalities at 7.41 per 100,000 population. Seattle had the greatest number of pedestrian collisions and pedestrian injuries, however, Bremerton had the highest rate for total pedestrian collisions 135.06 per 100,000 and pedestrian injuries (137.71 per 100,000). Seattle had the second highest rate for these two categories while Wenatchee recorded the third highest collision and injury rates for pedestrians (Table 7-6).

Table 7-6

PEDESTRIAN COLLISION RATE BY POPULATION Cities 15,000 Population & Greater							
City	1985 Population	Pedestrian Deaths		Pedestrian Injuries		Total Ped Collision	
		Number	Rate*	Number	Rate*	Number	Rate*
250,000 and Over							
1. Seattle	491,400	11	2.24	463	94.22	455	92.59
100,000 to 250,000							
1. Spokane	172,100	5	2.91	130	75.54	124	72.05
2. Tacoma	160,800	6	3.73	110	68.41	109	67.79
50,000 to 100,000							
1. Bellevue	80,250	2	2.49	32	39.88	31	38.63
2. Everett	57,030	3	5.26	41	71.89	38	66.63
25,000 to 50,000							
1. Yakima	49,510	2	4.04	26	52.51	25	50.49
2. Bellingham	46,360	1	2.16	15	32.36	14	30.20
3. Vancouver	42,760	0	0.00	19	44.43	19	44.43
4. Bremerton	37,760	2	5.30	52	137.71	51	135.06
5. Kennewick	36,990	0	0.00	6	16.22	6	16.22
6. Renton	34,030	0	0.00	22	64.65	22	64.65
7. Richland	30,508	0	0.00	15	49.17	15	49.17
8. Longview	30,300	0	0.00	14	46.20	12	39.60
9. Auburn	29,880	0	0.00	8	26.77	8	26.77
10. Olympia	28,560	1	3.50	12	42.02	13	45.52
11. Redmond	28,130	0	0.00	12	42.66	12	42.66
12. Edmonds	27,880	0	0.00	10	35.87	10	35.87
13. Kent	26,979	2	7.41	16	59.31	17	63.01
14. Walla Walla	25,640	1	3.90	11	42.90	12	46.80
15,000 to 25,000							
1. Lynnwood	23,400	0	0.00	14	59.83	13	55.56
2. Pullman	22,560	0	0.00	12	53.19	11	48.76
3. Mercer Island	20,620	0	0.00	6	29.10	5	24.25
4. Kirkland	19,205	0	0.00	8	41.66	7	36.45
5. Puyallup	19,180	0	0.00	13	67.78	12	62.57
6. Pasco	18,700	0	0.00	6	32.09	6	32.09
7. Wenatchee	17,360	0	0.00	16	92.17	14	80.65
8. Aberdeen	17,250	0	0.00	8	46.38	8	46.38
9. Port Angeles	17,200	1	5.81	7	40.70	8	46.51
10. Mountlake Terrace	15,900	0	0.00	7	44.03	7	44.03

*Frequency per 100,000 population

HEAVY TRUCKS

Overview

In 1985, 8,605 heavy trucks were involved in collisions, for a 32.7% increase over the four-year baseline. Registrations in 1985 totaled 155,026, a 7.2% increase over the four-year average. Based on this registration figure, the 1985 collision rate was 555.1 collisions per 10,000 registered trucks, an increase of 24% over the previous four-year average.

There were 85 heavy trucks involved in fatal collisions during 1985. This was a 9% increase over the baseline average. The fatal collision rate of 5.5 collisions per 10,000 registered trucks was a slight increase from the baseline period (Table 8-1).

Table 8-1

SUMMARY OF HEAVY TRUCKS Heavy Trucks Involved in Traffic Collisions							
Collision Severity/Exposure & Rates	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
Total Trucks Involved in Collisions	8,605	7,472	6,525	5,822	6,122	6,485	32.7%
Trucks Involved in Fatal Collisions	85	87	65	63	97	78	9.0%
Registration of Heavy Trucks*	155,026	150,661	145,595	141,225	141,042	144,631	7.2%
Total Collision Rate**	555.1	495.9	448.2	412.2	434.1	447.6	24.0%
Fatal Collision Rate**	5.5	5.8	4.5	4.5	6.9	5.4	1.6%

* Estimated

**Collisions per 10,000 registered trucks

Location Of Heavy Truck Collisions By Severity

In 1985, 54.4% of the heavy trucks involved in total collisions were in urban areas (Figure 8-1). In 1985 there were 25 heavy trucks involved in fatal accidents in urban areas, compared to 60 in the rural areas. These figures comprise a 29.4 - 70.6% urban/rural proportion of involvement in fatal accidents, (Figure 8-2). The 1985 heavy truck involvement in injury accidents was split, 1,208 urban to 1,342 rural. These figures are 47.4 - 52.6% urban/rural split (Figure 8-3).

Figure 8-1

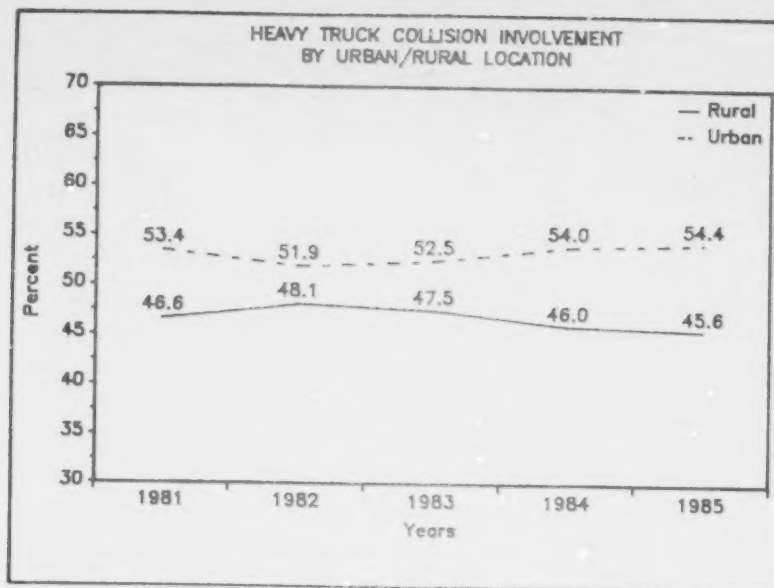


Figure 8-2

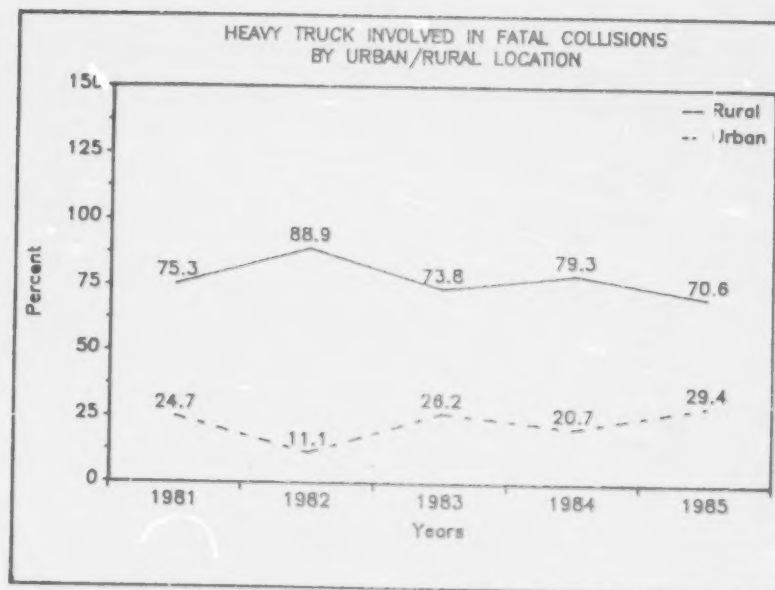
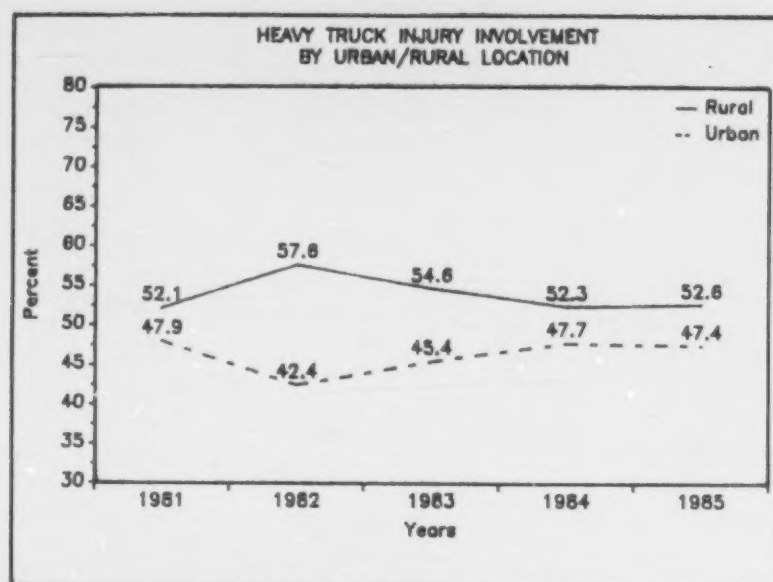


Figure 8-3



Age Of Drivers Involved In Heavy Truck Collisions

The 19-year old and under and 20-29 year old age groups were the only two age groups to be over-represented in heavy truck collisions in 1985 compared to the percentage of licensed drivers each group comprised. The 19 and under group comprised 0.2% of all licensed heavy truck operators. Yet, this group was involved in 2.5% of all heavy truck accidents and 2.4% of the heavy truck injury accidents. The ratio for percent of accident involvement compared to percent of licensed drivers comprised by the 19 and under age group resulted in an over-representation ratio of 12.57 for this group. The 20-29 year old age group was involved in 30.3% of the total collisions, 27.8% of the fatal collision and 31.3% of the injury collisions. This group comprised 16.2% of all drivers having a classified endorsement on their licenses. Based on the percent of licensed drivers and accident involvement, this group was over-represented in accidents by a ratio of 1.87. The rest of the driver age groups are under-represented in total accidents (Table 8-2).

Table 8-2

DRIVERS INVOLVED IN HEAVY TRUCK COLLISIONS By Age								
Age	All Accidents		Fatal Accidents		Injury Accidents		% of Classified Drivers*	Over/Under Ratio**
	Number	%	Number	%	Number	%		
19 & Under	180	2.5%	0	0.0%	54	2.4%	0.2	12.57
20-29	2,167	30.3%	22	27.6%	706	31.3%	16.2	1.87
30-39	2,171	30.3%	19	24.1%	695	30.8%	31.5	0.96
40-49	1,441	20.1%	20	25.3%	432	19.1%	23.3	0.86
50-59	902	12.6%	15	19.0%	275	12.2%	16.0	0.79
60 & Over	298	4.2%	3	3.8%	96	4.3%	12.7	0.33

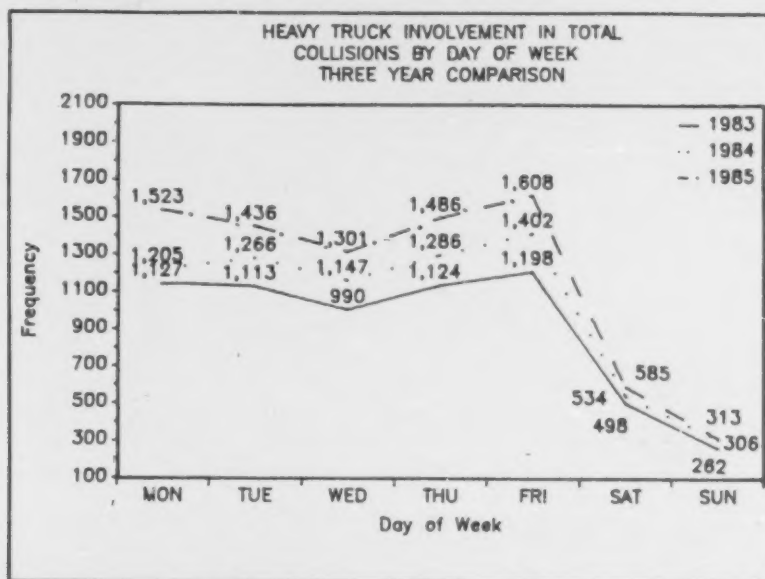
* Classified Endorsement is only required for operators of the larger trucks and truck combinations

** Percent of collision involvement to percent of licensed drivers

Heavy Truck Collision Occurrences By Time

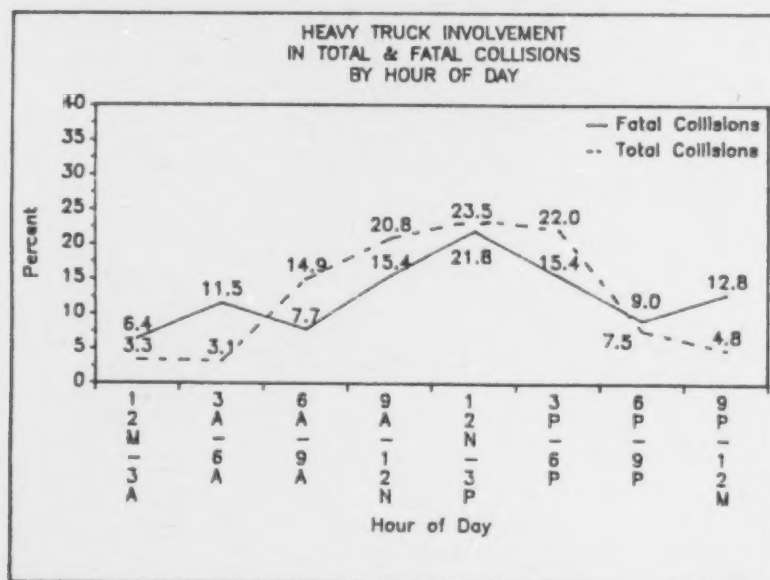
The daily frequency of heavy truck accidents in 1985 exceeded those occurrences of the two previous years while following about the same frequency pattern. The weekdays had the highest frequencies of heavy truck collision involvement. During the weekends, there was a substantial decline in the frequency of heavy truck involvement in collisions (Figure 8-4).

Figure 8-4



In 1985 the time period from noon to 3 p.m. recorded the highest incidence of heavy truck involvement in collisions. A substantial increase in collisions commenced during the 3 a.m. to 6 a.m. time period, peaking at the noon to 3 p.m. period and then commencing to decline (Figure 8-5).

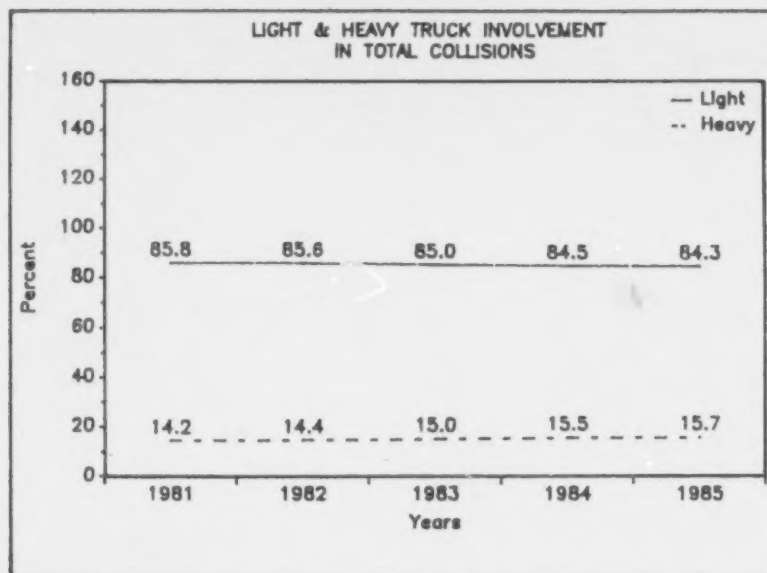
Figure 8-5



Total Collisions — Light Trucks vs. Heavy Trucks

In 1985 there were 46,160 light trucks and 8,605 heavy trucks involved in collisions. This 84.3% - 15.7% ratio between light and heavy trucks represents only a slight change from the ratios of the previous three years (Figure 8-6).

Figure 8-6



Collisions By First Harmful Event

During 1985 heavy trucks were involved in 6,042 collisions involving other moving motor vehicles. This figure represents 73.2% of all heavy truck collisions. Heavy trucks also were involved in 643 collisions in which the other vehicle was parked and in 884 collisions with fixed or other objects. Overturning, other non-collisions and all other collisions accounted for the remaining heavy truck-involved collisions (Table 8-3).

Table 8-3

HEAVY TRUCK COLLISIONS BY FIRST HARMFUL EVENT Four Year Comparison				
Type of Collision	1985	1984	1983	1982
	% of Number Total	% of Number Total	% of Number Total	% of Number Total
Collision with other moving motor vehicles	6,042 73.2%	5,170 72.4%	4,577 72.6%	3,984 71.2%
Collision with parked vehicle	643 7.8%	507 7.1%	409 6.5%	422 7.5%
Collision with fixed/other object	884 10.7%	801 11.2%	689 10.9%	646 11.5%
Overturning	414 5.0%	409 5.7%	394 6.2%	331 5.9%
Other non-collision	153 1.9%	139 1.9%	145 2.3%	135 2.4%
All other collisions*	116 1.4%	117 1.6%	93 1.5%	81 1.4%

* Pedestrians, pedalcyclists, etc.

Heavy Truck Defects

In 1985 defective brakes accounted for 41.1% of the defects detected in heavy trucks involved in collisions. Other defects and the percentages were worn or smooth tires, 12.8%; defective rear lights, 6.2%; defective steering, 4.7%, and all other defects, 30.7% (Table 8-4).

Table 8-4

DEFECTS OF HEAVY TRUCKS INVOLVED IN COLLISIONS Four Year Comparison				
Condition of Vehicle	1985	1984	1983	1982
	% of Number Total	% of Number Total	% of Number Total	% of Number Total
Defective Brakes	325 41.1%	359 44.0%	228 36.4%	185 29.5%
Defective Headlights	7 0.9%	6 0.7%	5 0.8%	2 0.3%
Defective Rear Lights	49 6.2%	61 7.5%	44 7.0%	46 7.3%
Defective Steering Mechanism	37 4.7%	28 3.4%	23 3.7%	20 3.2%
Puncture or Blowout	29 3.7%	37 4.5%	38 6.1%	31 4.9%
Worn or Smooth Tires	101 12.8%	93 11.4%	94 15.0%	70 11.2%
Other Defects	243 30.7%	231 28.3%	195 31.1%	154 24.6%

PUPIL TRANSPORTATION

Overview

In the 1984-85 school year there were 310 reported school bus collisions in which 140 persons were injured. This represented a 18.5% decrease over the previous 3-year average in total school bus collisions and an 9.3%-increase in the number of persons injured. There were 6,107 registered school buses in the 1984-85 school year. This marked a 0.5% decrease in registrations from the 3-year baseline period. School bus travel decreased 5.87% during the 1984-85 school year compared to the previous 3-year baseline period (Table 9-1).

Table 9-1

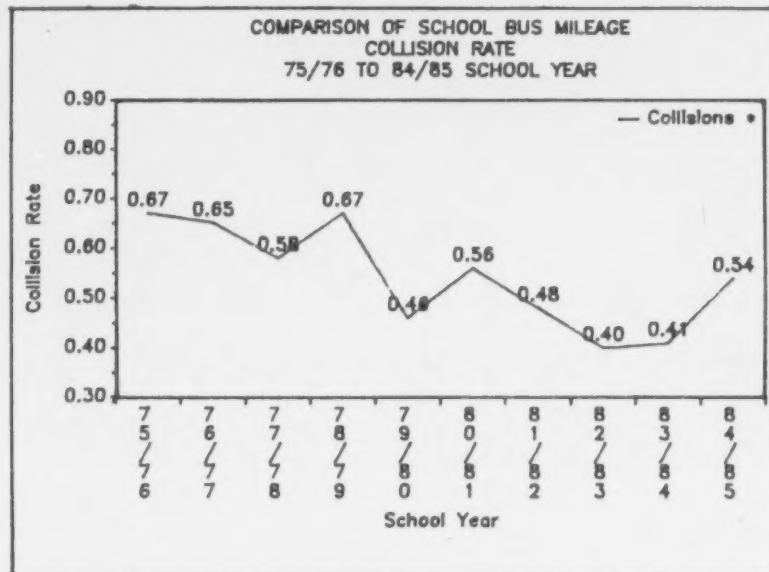
COLLISIONS INVOLVING SCHOOL BUSES Four Year Comparison						
Severity, Exposure & Rates	Years				Previous 3 Year Average	% of Change 85 - 3 Year Average
	84-85	83-84	82-83	81-82		
Total Collisions	310	248	256	281	262	18.47%
Fatal Collisions	2	0	2	2	1	50.00%
Injury Collisions	91	75	85	90	83	9.20%
Property Damage Collisions	217	173	169	189	177	22.60%
Number Killed	2	0	1	1	1	200.00%
Persons Injured						
Pupils	28	50	57	44	50	-44.37%
School Bus Drivers	23	11	12	16	13	76.92%
Other Occupants of School Bus	0	4	1	0	2	-100.00%
Pedestrian/Bicyclist	4	6	2	2	3	20.00%
Occupants/Other Vehicles Involved	85	71	94	93	86	-1.16%
Total Injured	140	142	166	155	154	-9.29%
School Bus Registration	6,107	6,005	6,286	6,127	6,139	-0.53%
Registration Collision Rate*	50.8	41.3	40.7	45.9	42.6	19.08%
Miles Traveled (in thousands)	57,849.3	61,042.7	64,713.1	58,619.5	61,458.4	-5.87%
Mileage Collision Rate**	0.54	0.41	0.40	0.48	0.427	25.48%

* Collisions per 1,000 registered vehicles

** Collisions per 100,000

In 1984-85 school year, the school bus mileage collision rate was .54 collisions per 100,000 miles of travel (Figure 9-1). This rate was up from the 1983-84 rate of 0.41 and the 0.43 rate of the previous 3-year baseline (Figure 9-1).

Figure 9-1



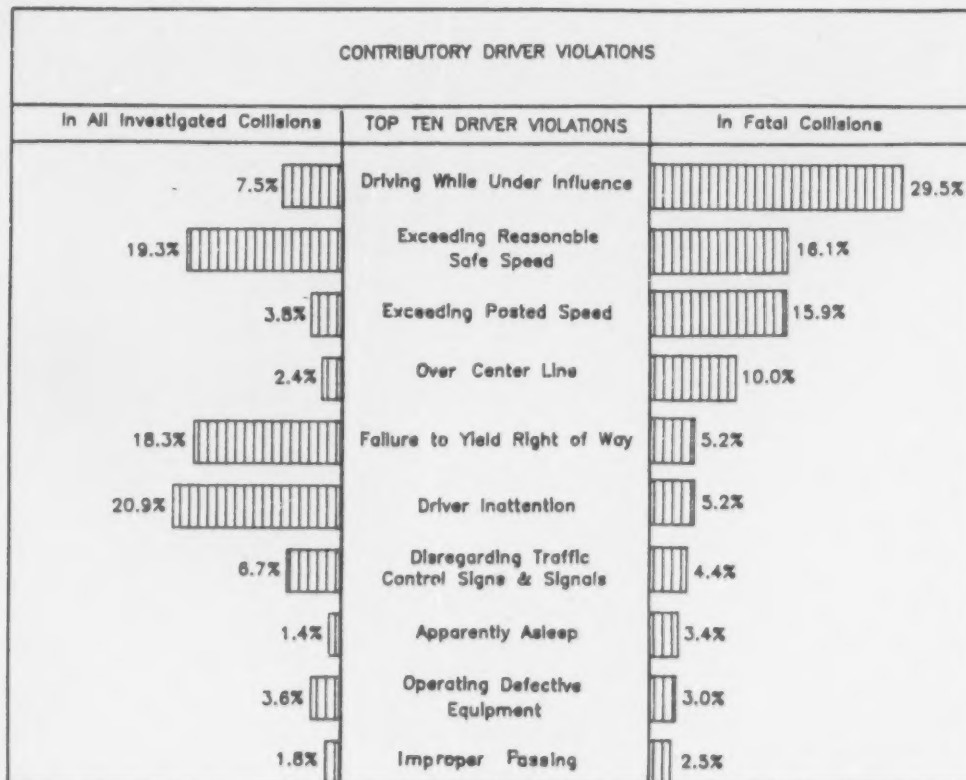
* Collisions Per 100,000 Miles Of Travel

CONTRIBUTORY DRIVER VIOLATIONS

Overview

Driving while under the influence of intoxicating liquor contributed to 29.5% of the driver violations in fatal collisions and 7.5% of all investigated collisions. Driver inattention contributed to 20.9% of all investigated collisions and 5.2% of the violations in fatal collisions (Figure 10-1).

Figure 10-1



VEHICLE DEFECTS

Overview

In investigated collisions during 1985, only 5.14% of the accident-involved vehicles were found to have contributory vehicle defects. The most common defect was worn or smooth tires, a defect found in 3,043 vehicles. This represented a 3.9% increase in this category compared to the previous 4-year average. Defective brakes, the second most contributory defect, was found on 1,723 collision-involved vehicles in 1985. This was an increase of 10.4% compared to the baseline (Table 10-1).

Table 10-1

VEHICLE CONDITION* Five Year Comparison							
Description	Years					Previous 4 Year Average (81-84)	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
Defective Tires:							
Worn or Smooth Tires	3,043	2,996	2,964	2,828	3,054	2,929	3.9%
Puncture or Blowout	345	367	462	446	557	425	-18.8%
Defective Brakes	1,723	1,785	1,514	1,383	1,585	1,561	10.4%
Defective Lights:							
Headlights	156	143	149	150	184	147	5.9%
Rear Lights	370	394	361	394	403	383	-3.4%
Other Lights/Reflectors	97	122	95	95	117	104	-6.7%
Defective Steering	307	381	308	281	334	323	-5.1%
All Other Defects	1,963	1,439	1,387	1,145	1,080	1,324	48.3%
No Defects	147,591	139,320	131,273	123,345	136,592	131,313	12.4%
TOTAL VEHICLES INVOLVED	155,595	146,947	138,513	130,067	143,906	138,509	12.3%

SENIOR DRIVER INVOLVEMENT

Overview

Drivers 65 years old and older were involved in 11,601 reported collisions; 83 fatal collisions; and 4,275 injury collisions during 1985. This was a 16.1% increase in reported collisions, 19.4% in fatal collisions and 16.6% in injury collisions compared to the previous 4-year baseline period. There were 358,009 licensed drivers 65 years old and older in 1985, up 14.4% from the baseline period. The fatal collision rate (total collisions per 1,000 licensed drivers) of 0.23 for 1985 was up 5.1% over the baseline period (Table 11-1).

Table 11-1

SENIOR DRIVER COLLISIONS - 65 YEARS & OLDER Five Year Comparison							
Collisions & Rates	Years					Previous 4 Year Average	% of Change 85 - 4 Year Average
	1985	1984	1983	1982	1981		
Total Collisions	11,601	11,059	10,259	9,195	9,440	9,988	16.1%
Fatal Collisions	83	74	95	58	51	70	19.4%
Injury Collisions	4,275	4,044	3,815	3,355	3,456	3,668	16.6%
Licensed Drivers	358,009	339,694	321,853	302,600	287,500	312,912	14.4%
Total Collision Ratio*	7.15	6.89	9.26	6.31	5.40	6.92	3.5%
Fatal Rate**	0.23	0.22	0.30	0.19	0.18	0.22	5.1%
Total Collision Rate***	3.24	3.26	3.19	3.04	3.28	3.19	1.5%

* Fatal Collisions per 1,000 total collisions

** Fatal Collisions per 1,000 licensed drivers

*** Senior drivers involved per 100 licensed

Senior Driver Involvement in Collisions By First Harmful Event

In 1985, 86.3% of those drivers 85 years and older who were involved in all reported collisions collided with other moving vehicles. This type of collision also resulted in the greatest percentage of fatal collisions (61.4%) and injury collisions (83.1%). Single vehicle collisions with a fixed object led to the second largest percentage of senior drivers involvement in total, fatal and injury collisions at 6.1%, 20.5% and 7.9% respectively (Table 11-2).

Table 11-2

SENIOR DRIVER INVOLVEMENT IN COLLISIONS By First Harmful Event						
Type of Collision	Total Collisions		Fatal Collisions		Injury Collisions	
	Number	% of Total	Number	% of Total	Number	% of Total
Collision with other moving motor vehicles	10,009	86.3%	51	61.4%	3,551	83.1%
Collision with parked vehicle	429	3.7%	2	2.4%	72	1.7%
Collision with fixed/other object	707	6.1%	17	20.5%	339	7.9%
Overturning & other non collision	144	1.2%	4	4.8%	74	1.7%
Other collisions, including ped., pedal., animal, & R.R. train	312	2.7%	9	10.8%	239	5.6%
TOTAL	11,601	100.0%	83	100.0%	4,275	100.0%

Senior Driver Collision Involvement By Age Group

Failure to yield right-of-way contributed to 35.7% of the total drivers violations for drivers 65 to 69 years of age. This violation was also the leading violation for drivers 70-74 and 75 and older groups contributing to 39.5% and 45.0% respectively. This was followed by speed, too fast for conditions and disregarding traffic control signs and signals for all three of the senior driver age groups (Table 11-3).

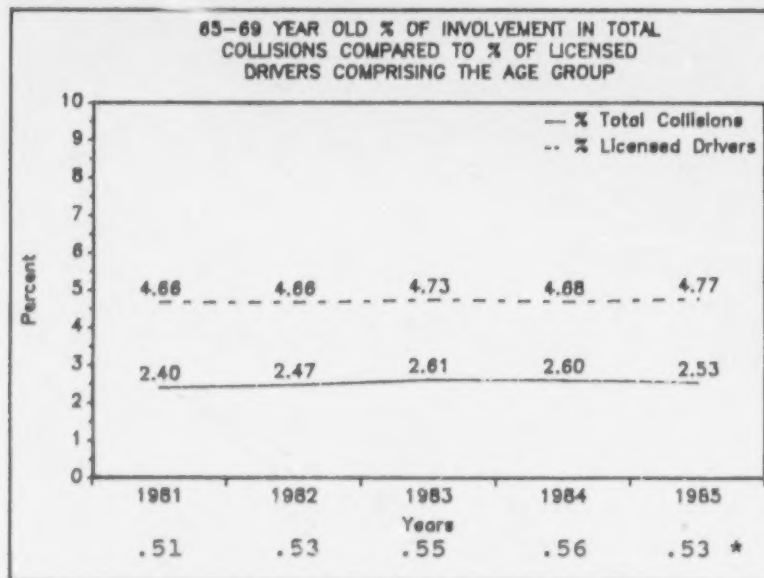
Table 11-3

SENIOR DRIVER COLLISIONS - 65 YEARS AND OLDER Percent of Total Circumstances by Age Group						
Contributing Circumstances*	65-69		70-74		75 & Older	
	Number	%	Number	%	Number	%
Failure to Yield Right of Way	861	35.7%	842	39.5%	1,283	45.0%
Speed-Too Fast For Conditions	258	10.7%	198	9.3%	191	6.7%
Disregarding Traffic Signal/Signs	228	9.5%	221	10.4%	293	10.3%
Following Too Closely	144	6.0%	119	5.6%	129	4.5%
Driving While Under the Influence	99	4.1%	43	2.0%	33	1.2%
Operating Defective Equipment	38	1.6%	21	1.0%	46	1.6%
Crossing Over the Centerline	53	2.2%	33	1.6%	38	1.3%
Exceeding Legal Speed	25	1.0%	13	0.6%	18	0.6%
All Other Circumstances Including Driver Inattention	706	29.3%	639	30.0%	823	28.8%
TOTAL	2,412	100.0%	2,129	100.0%	2,854	100.0%

*Investigated collisions only

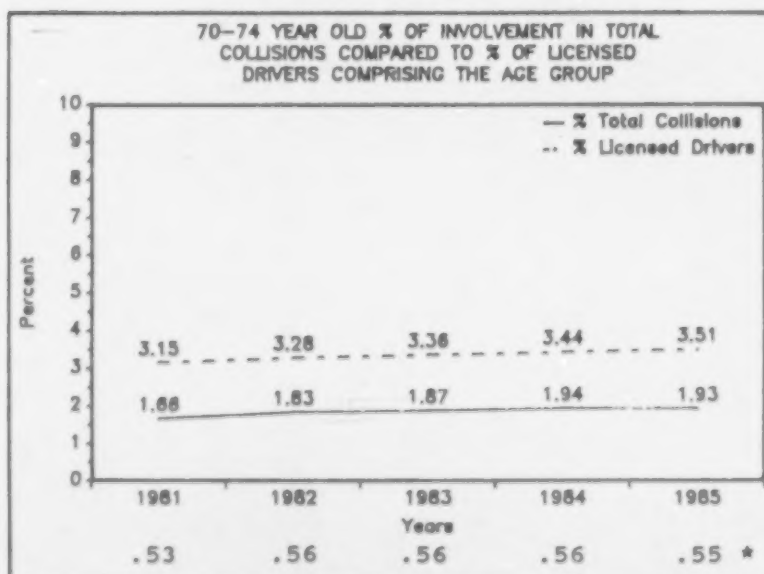
In 1985 the 65-69 year old group was involved in 4,632 reported collisions for 2.53% of all collisions. This group made up 4.77% of the total number of drivers licensed to drive in this rate. The under-representation ratio of 0.53 was down from the 0.56 ratio of the previous year and also down slightly from the previous four-year baseline average (Figure 11-1). The 70-74 age groups posted an under-representation ratio of 0.55, down slightly from the previous three years (Figure 11-2). The 75 year old and older age group continued to be under-represented in total collisions compared to this group's percentage of licensed drivers. The .62 ratio is down from the .66 ratio of the previous year and down even greater from the 0.71 ratio recorded in 1982 (Figure 11-3).

Figure 11-1



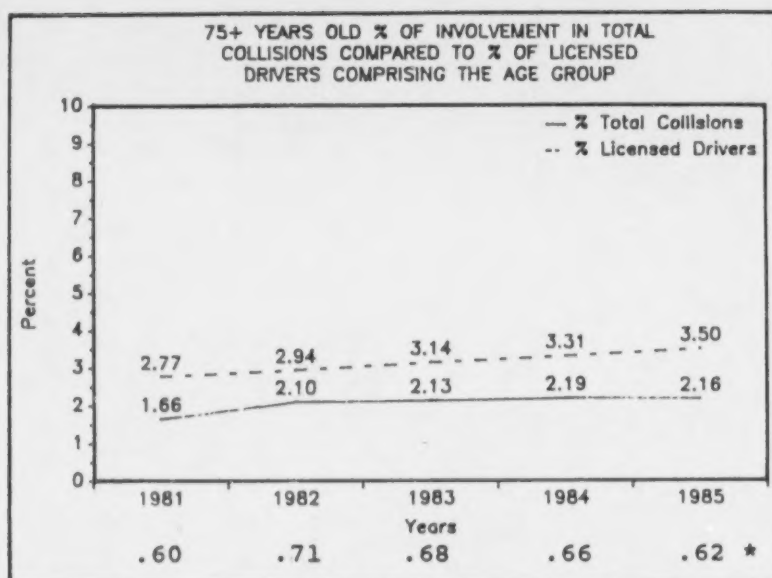
*Ratio

Figure 11-2



*Ratio

Figure 11-3



*Ratio

In 1985, urban collisions involving senior drivers (65 years old & older) decreased slightly to 65.6% while rural collisions involving senior drivers made up 34.4% of the total (Figure 11-4). In 1985, senior driver injury collisions increased in rural areas over 1984, but declined in urban areas during the same time frame (Figure 11-5). Senior driver fatal collisions continued to be more common in rural areas. In 1985, 67.5% of the fatal collisions involving senior drivers occurred in rural areas (Figure 11-6).

Figure 11-4

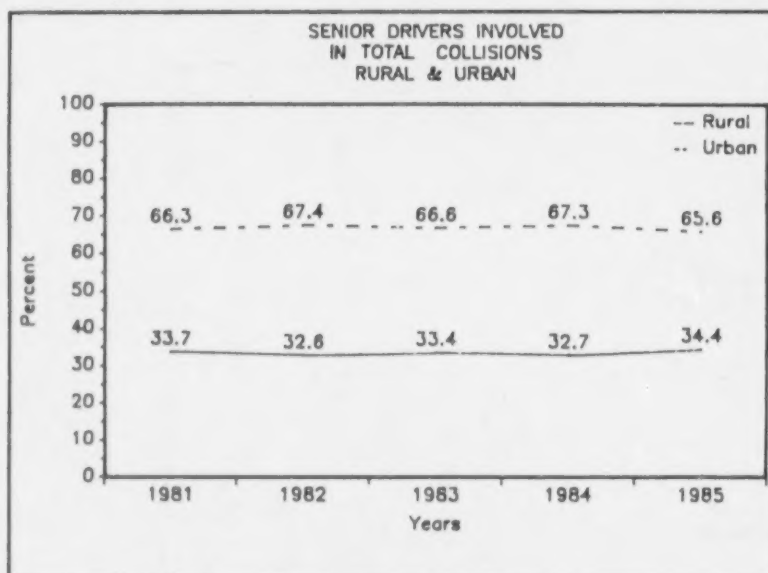


Figure 11-5

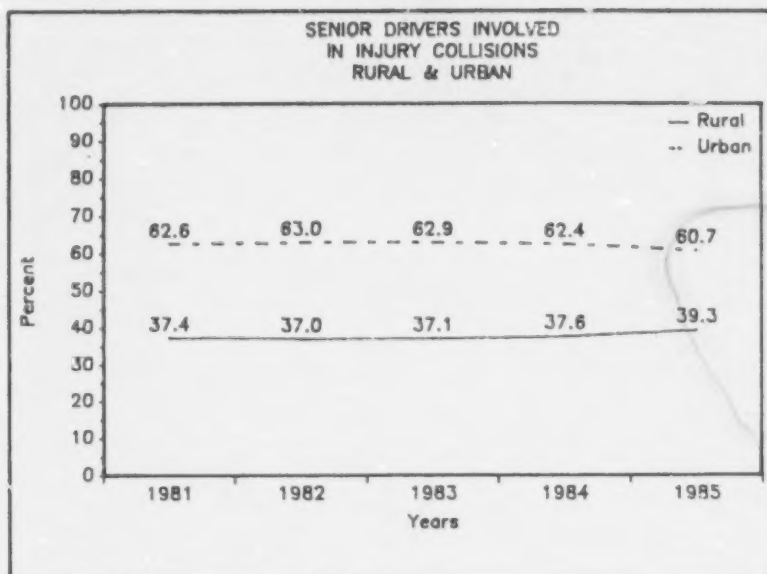
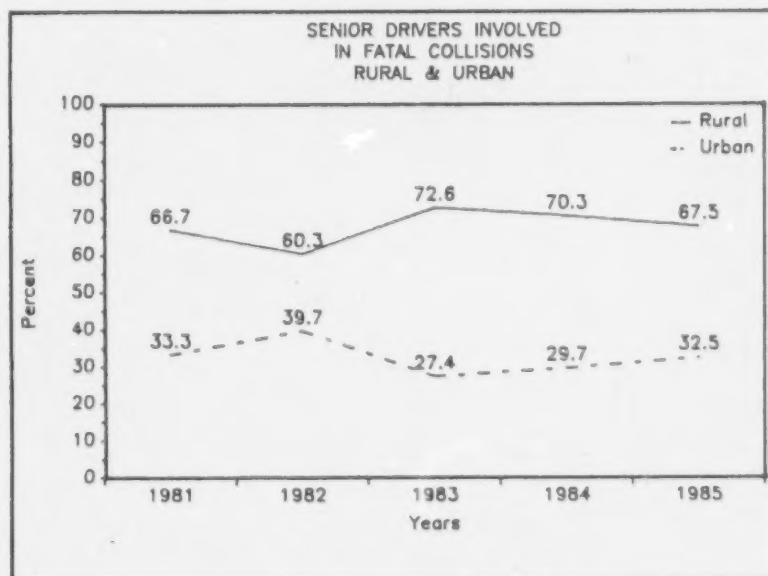


Figure 11-6



Senior Driver Involvement By Time

In 1985, 17.9% of all fatal collisions involving senior drivers occurred on Wednesday, Thursday and Saturday.

In 1985, Wednesday, Thursday and Saturday each recorded 17.9% of the rural fatal collisions involving seniors. Friday was the high day of the week for total reported rural collision, recording 16.6% of the senior driver collisions followed by Thursday with 15.4% and Tuesday with 15.2% of the collisions (Figure 11-7). Saturday was the highest fatal accident day recording 22.2% of the senior drivers urban area collisions. Friday recorded the greatest percentage of urban total reported collisions (18.7%) for the group (Figure 11-8).

Figure 11-7

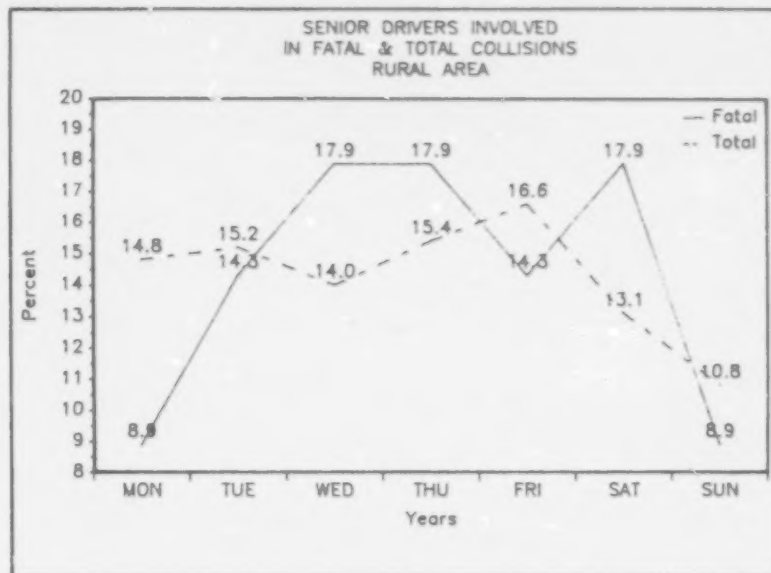
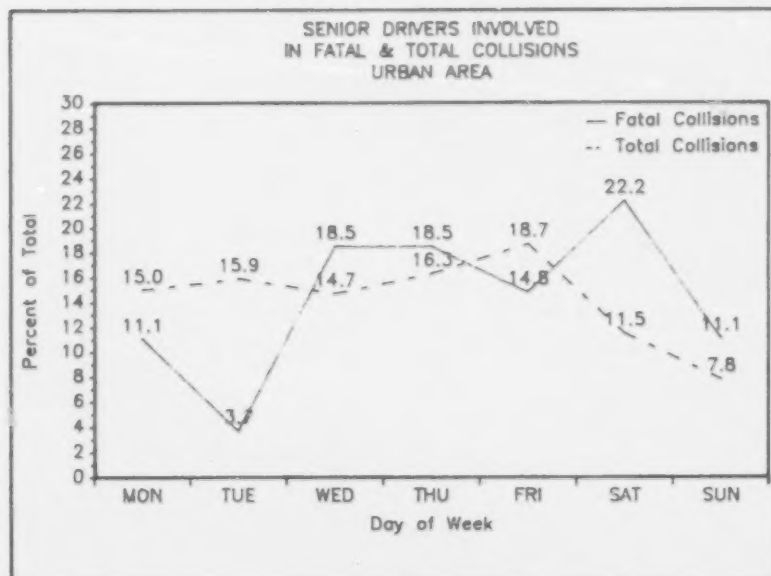


Figure 11-8



In rural areas, the greatest percentage (30.4%) of senior driver involvement in fatal crashes in 1985 occurred from 9 a.m. to 12 noon. The greatest percentage of total collision involvement (28.8%) for these drivers was from 12 noon to 3:00 p.m. (Figure 11-9). In the urban areas, the greatest senior involvement by time period in fatal collisions was 40.7% in the 12 noon to 3 p.m. period. This same time frame recorded 31.7% of the total urban reported collisions (Figure 11-10).

Figure 11-9

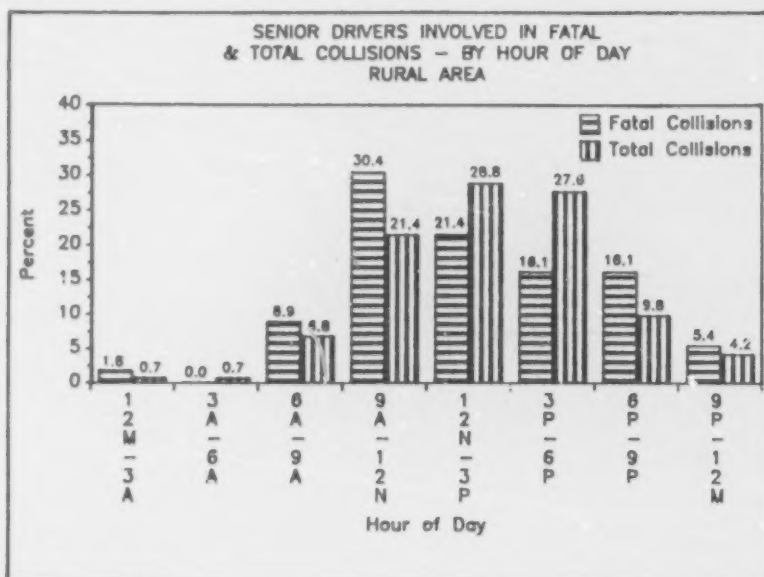


Figure 11-10

